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AUTHOR Vogel, Cheri A.; Boller, Kimberly; Faerber, Jennifer; Shannon, Jacqueline D.; Tamis-LeMonda, Catherine S.

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ABSTRACT

Despite policymakers' increasing interest in how fathers and fathering affect the well-being of children, research into the roles of low-income fathers has not met the needs of policymakers, who could benefit from better understanding of the factors affecting fathers' continuing support of and engagement in relationships with their children. In an effort to advance understanding of these factors, Mathematica Policy Research was funded to conduct research on fathers of newborn babies in conjunction with the National Early Head Start Research and Evaluation Project. The study focused on answering questions about who the fathers are, their level of involvement with their families and children, and how and why involvement changes over time. Fathers were recruited through expectant mothers from Early Head Start and similar comprehensive, community-based programs. Findings are based on two interviews and associated observations with 108 men conducted within the first 14 months of their children's lives. Main findings were as follows: (1) fathers were present in their children's lives, with most living with their children at the time of the interview, and many married to the children's mothers; (2) fathers were involved in multiple ways with their children, including caregiving tasks; (3) fathers engaged their children in nurturing and supportive ways; and (4) fathers faced many stressors, particularly parenting stress, but also had many supports, including high levels of satisfaction and low levels of conflict in their current romantic relationships, someone else they could talk with about parenting, and positive past experiences with their own fathers. Based on findings, Mathematica suggested that Early Head Start and similar programs serving low-income families and their young children (1) recognize that many men are involved with their children and engage the men in program services as early as possible; (2) when possible, encourage fathers to become involved before the child is born; (3) develop ways to encourage mothers to support the men

in their roles as fathers; and (4) be aware of the psychological changes and distress that men can experience during this time and, when necessary, link men with mental health services. (Appended are analyses of father-child interactions at 6 and 14 months, and lessons for data collection. Contains 32 references.) (Author/HTH)

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**Understanding Fathering:
The Early Head Start
Study of Fathers of
Newborns**

May 2003

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*Cheri A. Vogel
Kimberly Boller
Jennifer Faerber
Jacqueline D. Shannon
Catherine S. Tamis-LeMonda*

Submitted to:

The Ford Foundation
320 East 43rd Street
New York, NY 10017

Grants Officer:
Sharon Ebron

Submitted by:

Mathematica Policy Research, Inc.
P.O. Box 2393
Princeton, NJ 08543-2393
Telephone: (609) 799-3535
Facsimile: (609) 799-0005

Project Director:
Kimberly Boller

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EXECUTIVE SUMMARY

As the issue of how fathers and fathering affect the well-being of children has grown in importance, policymakers have become particularly interested in learning about the ways in which fathers in low-income families contribute to their children's development. Despite this interest, however, research into the roles of low-income fathers has not met the needs of policymakers, who could benefit from a better understanding of the factors affecting fathers' continuing support of and engagement in relationships with their children—even if the mother-father relationship ends (Cabrera et al. 2002; and Federal Interagency Forum on Child and Family Statistics 1998). In an effort to advance our understanding of these factors as they relate to the early years of life, the Ford Foundation funded Mathematica Policy Research, Inc. to conduct research on fathers of newborn babies in conjunction with the national Early Head Start Research and Evaluation Project. This research (referred to as the "Newborn Study") was conducted in the context of the broader range of Early Head Start father studies funded by the National Institute of Child Health and Human Development, the Administration for Children and Families, the Administration on Children, Youth and Families (ACYF), and the Office of the Assistant Secretary for Planning and Evaluation, all in the U.S. Department of Health and Human Services.

This study focused on answering questions about (1) who the fathers are, (2) what their level of involvement with their families and children is, and (3) how and why involvement changes over time. The answers are important to programs that want to more effectively design and target services for fathers in the context of serving children and families.

Our findings are based on two interviews and associated observations with 108 men conducted within the first 14 months of their children's lives. To identify the men, we first recruited expectant mothers from Early Head Start and similar comprehensive, community-based programs. To obtain the sample of men, we then asked each mother to indicate whether her child's biological father or a father figure (a man whom she expected would raise the child with her) was part of the child's life at the time of her recruitment into the study. If the father was part of his child's life, we had him complete an initial interview by

the time the child reached 14 months of age.¹ The study continued to follow that man over time, even if he subsequently ceased to remain involved with his child and family.

This study is the first of its kind to provide information on a group of men at a very early stage in their children's lives, and in the context of the children's enrollment in an intervention program. Through this unique lens, we are able to look closely at the lives of a substantial number of low-income fathers of newborns. Although its findings are not necessarily generalizable to all low-income fathers of newborns, the study does provide new information and detail not previously available, and it offers both lessons for programs and areas for further study.

MAIN FINDINGS

Fathers were present in their children's lives. Almost all the fathers in our study were the biological fathers of the focal children. Most were living with their children at the time of each interview, and many were married to the children's mothers.

Fathers were involved in multiple ways with their children. Fathers not only were present in the home but reported involvement in a wide variety of activities with their children.

- They participated in many activities before the children were born, and most were present at the birth or visited the children in the hospital shortly thereafter.
- Fathers often spent time caring for their children. However, the picture of caring depends on whom we asked: The proportion of men who reported providing frequent caregiving increased between interviews, while the proportion of mothers who reported frequent caregiving by fathers declined over the same period.
- Fathers reported engaging in many types of activities with their children on a frequent basis (at least daily). The fathers did not limit these activities to play; they also engaged in such caregiving activities as diapering, putting their children to bed, and dressing their children.
- Fathers who accompanied the mothers on a prenatal visit were more likely to engage in father-child activities later. Their presence at the birth of their children also was positively associated with later father-child activities.

¹For the men in this report, the "first interview" was conducted when the child was either 1, 3, or 6 months of age, and the second was conducted when the child was 14 months of age.

Fathers engaged their children in nurturing and supportive ways. Videotapes of semistructured father-child interactions when the children were 6 and 14 months old showed that fathers were positive in affect, flexible, and rarely intrusive when interacting with their children. These behaviors were associated with more responsiveness on the part of the children.

Fathers faced many stressors, but they had many supports. Fathers reported moderate satisfaction with the financial and material aspects of their lives, although many fathers reported symptoms of depression. Most strikingly, more than half reported high levels of parenting distress at the first and 14-month interviews, and parent-child dysfunctional interaction scores, which were moderately high at the first interview, increased over time. Although we cannot infer a causal relationship, high scores on depression, parenting stress, and parent-child dysfunctional interaction were associated with lower levels of father-child activities.

Despite the challenges to their psychological well-being, fathers overall reported very positive interpersonal relationships and high levels of support from others for their role as a father. Nearly all the men reported high levels of satisfaction and low levels of conflict in their current romantic relationships, and most of them were involved with the mothers of their children. In addition, nearly all the men had someone to talk to about being a father; most had another man whom they could turn to. Positive past experiences with their own fathers were associated with more frequent father-child activities, an indication that involving fathers in positive ways with their children may have long-term benefits.

RECOMMENDATIONS FOR PROGRAMS

On the basis of these findings, we suggest that Early Head Start and similar programs serving low-income families and their young children (1) recognize that many men are involved with their children and engage the men in program services as early as possible; (2) when possible, encourage fathers to become involved before the children are born; (3) develop ways to encourage mothers to support the men in their roles as fathers; and (4) be aware of the psychological changes and distress that men can experience during this time and, when necessary, link men with mental health services.

NEXT STEPS FOR RESEARCH

The data that we collected from fathers and mothers were rich and detailed, and they have enabled us to answer a number of important research questions. In this report, we chose to examine the longitudinal aspects of fathers' involvement with their children. Another approach would be to base research on mothers' reports about fathers, even if the fathers did not remain in the interview samples. That approach would allow us to examine questions about the factors relating to the continued involvement or lack of involvement of men over time. Still other research efforts would permit us to analyze the qualitative information that we have gathered about the meaning of fathering, as well as to conduct a longer-term longitudinal analysis by examining the data that we collected when the children were 24 and 36 months of age.

CHAPTER I

THE STUDY OF FATHERS AND THEIR NEWBORNS

Before the 1990s, policymakers considered fathers and fathering largely in a financial context (Halle et al. 1998). Over time, however, policymakers have become increasingly interested in the ways in which fathers contribute to the well-being of their children, particularly in the context of low-income families. For example, the federal Fatherhood Initiative, begun in 1995, required federal agencies to include fathers as part of their programmatic and research efforts related to children and families. At the time, researchers knew little about either fathers' roles in low-income families or the factors that increased or decreased the likelihood that fathers would continue to support and engage in relationships with their children even after the mother-father relationship had ended (Cabrera et al. 2000; and Federal Interagency Forum on Child and Family Statistics 1998). In an effort to advance understanding of these factors as they relate to the early years of the children's lives, the Ford Foundation provided funding to Mathematica Policy Research, Inc. (MPR) to conduct research on fathers of newborn babies in conjunction with the national Early Head Start Research and Evaluation Project. This research (referred to as the "Newborn Study") was conducted in the context of the broader range of Early Head Start father studies funded by the National Institute of Child Health and Human Development (NICHD), the Administration for Children and Families, the Administration on Children, Youth and Families (ACYF), and the Office of the Assistant Secretary for Planning and Evaluation, all in the U.S. Department of Health and Human Services.

The father studies conceptualized fathers' involvement based on the three components described by Lamb and colleagues (1985 and 1987): (1) engagement, (2) availability/accessibility, and (3) responsibility. The father involvement measures in the Newborn Study and the main Early Head Start evaluation were selected from existing measures or were developed specifically to provide data about engagement of fathers (direct interaction with the child), availability/accessibility (the amount of time that the father is available to the child for interaction and the amount of time that the father is accessible to the child, for example, nearby but not interacting with the child), and responsibility (taking charge of meeting the child's needs for supervision, basic welfare, and health care). In addition, to provide input into theory development in the area of fathering, the Early Head Start and

Newborn Study researchers conducted qualitative interviews that asked the fathers what it meant to them to be a good father, how being a father had affected them, what their experiences with their own fathers had been like, what kinds of help or supports they would like to have or would need in their fathering role, and what has made them proud of their children.

The Early Head Start evaluation was conducted in 17 programs across the country and included random assignment of families to either the Early Head Start group or a control group that agreed not to receive Early Head Start services for the duration of the evaluation (see Administration for Children, Youth and Families 2000, 2001, and 2002, for more information about the participating programs, evaluation, study findings, and program implementation). To be eligible to participate in the evaluation, a family had to be expecting a child or had to have a child younger than 12 months of age. The evaluation's components consisted of interviews with the children's primary caregivers; videotaped parent-child interactions; and child assessments when the children were 14, 24, and 36 months of age. In addition, 6, 15, and 26 months after random assignment, the children's primary caregivers completed interviews about the program-provided and community-based services that they had received. In 12 programs, the children's fathers or father figures completed interviews when the children were 24 and 36 months of age, and, in 7 programs, they completed videotaped father-child interactions as well. Early Head Start programs stimulated better child, parent, and home environment outcomes when the children were 2 years and 3 years of age. Overall impacts were modest (with effect sizes ranging from 10 percent to 20 percent), although impacts were considerably larger for some subgroups than for others (ranging from 20 percent to 50 percent), including African American families, families who enrolled during pregnancy, and families with a moderately high (versus a low or very high) number of demographic risk factors.

Although the programs had less experience in providing services to fathers than in providing services to mothers, at the time that the children were 36 months of age, Early Head Start had significant favorable impacts in several areas of fathering and father-child interactions. Early Head Start did not affect the proportion of mothers who reported that the children's biological fathers were present in the children's lives; 73 percent of mothers in the Early Head Start group and 71 percent in the control group reported that the fathers lived with or saw their children a few times per month or more. However, as shown by fathers' reports when their children were 36 months of age, fathers and father figures from the program group families were significantly more likely than those from the control group families to participate in program-related child development activities, such as home visits, parenting classes, and meetings for fathers. Early Head Start fathers were significantly less likely to report spanking their children during the week preceding the interviews than were control group fathers. As shown in the father-child videotaped interaction at 36 months, Early Head Start fathers were less intrusive than were control group fathers, and program children engaged their fathers more and were more attentive during play than were control group children. These findings provide part of the broader research context for the Newborn Study.

The Fragile Families and Child Wellbeing Study, a birth cohort study conducted in 20 cities in which the researchers interview both parents at the time that their study children were born, and when the children are 1, 3, and 5 years of age, has provided additional important background information that informed the Newborn Study (McLanahan et al. 2003). The study is following two groups of families—a group that was married at the time of their children's birth, and a group that was unmarried, or "fragile," at the time of the birth. About half of those who had been unmarried at the time that their children were born lived together, 31 percent were romantically involved but living apart, 8 percent reported that they were friends, and 10 percent had little or no contact with each other. One of the most important findings from the study is that the majority of unwed fathers were present in the hospital for the birth of their children, and that they can be engaged in a research project at that point. (The researchers were able to complete interviews in the hospital with 76 percent of the fathers of the children in the study). The study team called birth the "magic moment" and suggested that it is the time to consider engaging fathers in programs to help support them in their fathering role (McLanahan et al. 2003).

The present study was motivated by the prevailing policy and research contexts, as well as by a desire to expand knowledge about fathers and fathering—in particular, to provide information that would be useful to programs seeking to extend services to fathers and their families. Designing and targeting services for fathers and families requires research to answer questions about (1) who the fathers are, (2) what their level of involvement with their families and children is, and (3) how and why their involvement changes over time. Because the Ford Foundation was interested in these research questions, it provided support for the Newborn Study of Early Head Start fathers and mothers. The Foundation also funded a survey of Early Head Start programs that enabled researchers to learn about the variety of ways in which programs engage fathers, the services the programs provide for fathers, barriers to involving fathers in the programs, staffing and training related to fathers' involvement in the programs, and the programs' ratings of their stage of father involvement (Raikes et al. 2002).

The Newborn Study is unique in many respects. First, it documents in detail the fathering attitudes and behaviors of men longitudinally, beginning at a point very early in their children's lives, and it quantifies fathering behaviors in a way not previously quantified for infants and toddlers from low-income families. In addition to providing information about current fathering practices, it also provides information about the men's psychological well-being, the men's relationships with their own fathers, and the ways in which these factors relate to fathering practices. Finally, the data offer lessons for programs wishing to engage men and families and suggest other, "next step" areas to examine rigorously. With funding from ACYF and NICHD, a subsample of the families in the Newborn Study will be followed until the children are about to enter kindergarten. Those interviews and assessments will be completed in 2005.

This report provides in-depth information about fathers of newborns obtained from the fathers' own reports and from the reports of the children's mothers. The reports are based on repeated interviews conducted at various points during the first 14 months of their children's lives. We use the information to explain how the men's relationships and

interactions with their infants and toddlers changed over the first year of life. The rest of this chapter describes the sample, data analysis approach, and the fathers and families in the study sample. Chapter II examines particular fathering behaviors and their frequency; Chapter III presents analyses of videotaped father-child interactions; and Chapter IV describes the fathers' parenting attitudes, the fathers' psychological well-being, and the relationship of these factors to father-child activities. Chapter V takes all the information obtained from our analyses to draw lessons for programs. In subsequent publications, we will present findings about the way that fathers' involvement in the lives of their young children relates to child outcomes.

Selecting Programs and Recruiting Fathers

The Newborn Study built on the Early Head Start Research and Evaluation Project and did something that rarely has been attempted: it located expectant mothers who were enrolling in Early Head Start and similar programs and conducted multiple interviews with the fathers (and mothers) about their activities with their infants. Our approach was to interview the same man over time, even if he ceased to be involved with or left the family. Although this approach was the best one for understanding father involvement over time, it also had its own challenges—in particular, locating the men who no longer were involved with their families. This section describes in detail the study's eligibility requirements, the programs that participated in the study, and the recruiting methods they used. It also describes the sample of fathers that we obtained and the decision rules that we used to determine which men to include in our analyses.

Recruitment for the Newborn Study was challenging. At the beginning of the enrollment period, in spring 1998, we had expected to recruit 200 to 300 families, with 150 entering the study as part of the main Early Head Start evaluation, and another 100 to 150 entering after the main evaluation enrollment period had ended. From March through July 1998, 8 of the 17 Early Head Start evaluation sites had recruited a total of 48 families to participate in the main evaluation and the Newborn Study. Because the programs and their local research partners found that a smaller-than-expected number of pregnant women were applying to Early Head Start before the end of the evaluation's enrollment and random assignment period, we asked four of the original eight Early Head Start Newborn Study sites to continue recruiting families after random assignment had ended. To further increase the sample size, we recruited additional Early Head Start programs and comparable community-based programs providing comprehensive health, child development, and parent education services for pregnant women, infants, and toddlers. The New York University research team formed additional partnerships with two Early Head Start programs. One of the two programs was a comprehensive, community-based program that focused on providing services through home visits from the children's prenatal period through age 3 years; the second one was a group of five programs based in New York City public schools that provided services for teenaged mothers and care for their children. MPR worked with a program in Philadelphia that provided services for pregnant women and their families through home visits. In total, the sample members came from 12 Early Head Start programs, 1 Head Start program, and 7 comprehensive community-based programs for low-

income pregnant women and their families.¹ The majority of them came from the Early Head Start programs. In all, 265 families completed a first interview and were included in the Newborn Study sample. Later in this chapter, we describe the characteristics of that sample. Our analysis sample of fathers includes 108 men who completed at least two interviews.

Deciding which men to follow in a longitudinal study is a function of the research questions to be answered. In the main Early Head Start evaluation, we were most interested in understanding male involvement from the perspective of the child. We therefore interviewed the father or father figure who was most involved with the child at the time of the interview, even if this study methodology meant that we interviewed a different man each time. In the Newborn Study, in contrast, we were interested in the longitudinal aspects of men's involvement in the lives of their children. Therefore, we interviewed the same men over time.

To be enrolled in the Newborn Study, a mother had to report that her child's biological father or father figure (a man whom she expected would raise the child with her) was part of the child's life; he also had to complete a first interview. We included father figures because some mothers who did not expect the biological fathers of their children to play any role in the children's lives had romantic partners who had agreed to help raise the children. Only 13 (four percent) of the 265 families who completed a first interview included men who were not the biological fathers.

In keeping with our focus on father involvement over time, we continued interviewing the father identified at the beginning of the study even if the mother reported that he no longer was in contact with her or with the child. This approach significantly increased the challenges of completing father interviews, especially if the mother was unable to provide contact information for the father.

The Father Sample. We collected extensive longitudinal information on the families through interviews with fathers and mothers and through videotaped father-child interactions. We interviewed fathers 1, 3, 6, and 14 months after the birth of their children. Most of the men completed either a one-month or a three-month interview. Few completed both. Therefore, we combined the responses to these interviews (which were very similar in content) for purposes of analysis. Throughout this report, we refer to the "1/3-month" interview, rather than to either interview separately. We collected videotaped father-child interactions at both 6 months and 14 months. We also interviewed mothers at 1, 3, 6, and 14 months after the birth of their children, but we report only 1/3- and 14-month mother interview data here.

¹The programs were located in Russellville and Little Rock, Arkansas; Coeur d'Alene, Idaho; Lincoln, Nebraska; four New York City boroughs; Philadelphia and Pittsburgh, Pennsylvania; Sumter, South Carolina; northwest Tennessee; Logan, Utah; Brattleboro, Vermont; and Alexandria, Virginia.

Although we had planned to interview the entire sample at each point, the extremely short timeframe between scheduled interviews prevented us from completing all of the interviews. To maximize the sample size while maintaining the study's longitudinal focus, we report on the subsample of 108 men who completed at least two interviews. In Chapter III (and in Appendix A), we report on a sample of 128 men who completed videotaped interactions with their children at 6 months, and on a sample of 90 men who completed them at 14 months.

Constructing the Analysis Sample

Men moved in and out of the sample at various intervals, with many first completing an interview at 1, 3, 6, or even 14 months. We compared the data obtained from the men's first interview (which could have taken place at 1, 3, or 6 months with the responses obtained in the 14-month interview. We refer to these interviews as the "first" and 14-month interviews.²

In a few cases, we interviewed men at all three (1/3-, 6-, and 14-month) points. In these cases, with one exception, we used the data from the first interview period; however, if the 1/3 interview data were missing items that were available in the 6-month interview, we used the items from the 6-month interview to increase sample sizes for particular variables. We had to make this substitution in only a few cases, and we note in footnotes to the tables the instances in which we have done so. Furthermore, so that comparisons across time would be meaningful, we omitted, on a variable-by-variable basis, sample members with missing data at either the first or the 14-month interview. Therefore, although the base sample is always the 108 men, the sample size fluctuates somewhat by item. The omission of sample members with missing data enabled us to be certain that a difference between the first and 14-month interviews was due to actual reported change, rather than to fluctuating sample sizes.

In addition to the data from fathers, we include information from mothers. Like the fathers, the mothers also moved in and out of our sample over the various interview periods. Because the study focused on the longitudinal nature of the fathers' involvement, we did not limit our sample of mothers to those with two interviews; instead, we viewed the mothers as an additional source of information about the fathers. Therefore, within our sample of fathers, we used all available data from corresponding mothers. Table I.1 shows the sample sizes for all interview periods and the sample on which the results in this report are based.

²Sample sizes for individual items vary as a result of missing data or because interview questions differed over time. Some items were asked only in a particular survey, so the data are not available for any sample member who did not complete that survey. The ranges given for the sample sizes in the tables reflect these variations.

Table I.1: Sample Sizes of Fathers and Mothers at Each Interview and Combinations of Interviews

Interview	Sample Size
Father Interviews	
1/3-Month Interview	213
6-Month Interview	132
14-Month Interview	119
1/3-Month Interview Only	95
6-Month Interview Only	23
14-Month Interview Only	11
1/3- and 6-Month Interviews Only	39
1/3- and 14-Month Interviews Only	15
6- and 14-Month Interviews Only	29
1/3-, 6-, and 14-Month Interviews	64
1/3- or 6-Month and 14-Month Father Interviews	108
Father Videotape Data	
6-Month Data Only	128
14-Month Data Only	90
6- and 14-Month Data	73
6-Month Data and Father in the Analysis Sample	78
14-Month Data and Father in the Analysis Sample	76
6- and 14-Month Data and Father in the Analysis Sample	63
Mother Interviews	
1/3-Month Interview	272
1/3-Month Interview and Father in the Analysis Sample	99
14-Month Interview	103
14-Month Interview and Father in the Analysis Sample	71

SOURCE: Newborn Study 1/3-, 6-, and 14-month father interview data files and 1/3- and 14-month mother interview data files.

Sample Characteristics. An important part of any study is understanding the nature of the sample and how closely it represents a larger group to which we might generalize results. We studied a selected group of men who were eligible for, and whose families were enrolled in, Early Head Start or similar programs, and who allowed us to interview them on at least two occasions. These men are likely to be different from low-income fathers in general and from other fathers who enrolled in the study but who completed only one interview. It is therefore not possible to generalize our study findings to all low-income fathers or to all low-income fathers whose families are enrolled in Early Head Start. Although it is difficult to quantify how our sample might differ from low-income men generally, we compared our sample of fathers with the larger sample in the main Early Head Start father study. We found that fathers in the newborn and main father studies were demographically similar. They were about the same age at the time of the focal children's birth, and they were equally likely to speak English and to be born in the United States.

The fathers of newborns in our sample differed from the fathers in the main study in two respects. They were more likely to be the biological fathers of the focal children (which was an intended consequence of the design of the study), and more likely to identify themselves as Hispanic or African American (Table I.2).

We also compared the 108 fathers in our analysis sample with the 168 fathers who were not included in our analysis (because they had completed only one interview or did not complete a 14-month interview). We found no differences in demographic characteristics with the exception of race, with a significantly greater proportion of African Americans not included in the analysis sample (Table I.3).

Table I.2: Demographic Characteristics of Fathers in the Newborn Sample and of Fathers in the Main Study Sample

Characteristics	Newborn Study Fathers	EHS Main Study Fathers	
		Children at 24 Months	Children at 36 Months
Biological Father (Percent)	96	81***	77***
One-Time Demographics			
Age at Time of Child's Birth (Years) ^a	26.6 ^b	27.0	27.8
Born in United States (Percent)	83 ^b	83	84
Speaks Primarily English at Home (Percent)	86 ^b	84	85
Race/Ethnicity			
Hispanic (Percent)	38	27*	23**
African American (Percent)	32	22*	23
White (Percent)	30	47**	49**
Other (Percent)	0	4*	5*
Sample Size	108	769	739

SOURCE: Newborn Study 1/3-, 6-, and 14-month father interview data files; EHS Father Study 24- and 36-month father interview data files; and father supplement at 36 months for new fathers not interviewed at 24 months.

NOTE: Pairwise *t*-tests between the characteristics of the fathers in the Newborn Sample and the characteristics of the fathers in the main study who were interviewed at 24 and 36 months indicated no significant differences.

^aIn most cases, the computation of age at the time of the child's birth was based either on the father's birth date and the child's birth date or on the mother's report of the biological father's age at the time of the child's birth. When there was no mother interview to supply the child's date of birth or the biological father's age at the time of birth, we based the age on the father's age at the time of the interview.

^bThe first interview was conducted at either the 1/3-month point or the 6-month point and varies for each demographic variable. Demographic information for fathers interviewed at both 1/3 months and 6 months are set equal to the nonmissing responses that occurred at the earliest available period. Demographic information for fathers interviewed at 1/3 months or at 6 months is set equal to the response to the available item at that time period (assuming that the particular demographic item was asked in that interview).

**p* < 0.10.

***p* < 0.05.

****p* < 0.01.

*****p* < 0.001.

Table I.3: Demographic Characteristics of Fathers Who Completed Two Interviews and of All Other Fathers in the Newborn Study

Characteristics	Fathers with Two Interviews	Fathers Not Included in the Analysis
One-Time Demographics^a		
Age at Time of Child's Birth (Years) ^b	26.6	25.6
Born in United States (Percent)	83	78
Speaks Primarily English at Home (Percent) ^c	86	85
Race/Ethnicity		
Hispanic (Percent)	38	30
African American (Percent)	32	46*
White (Percent)	30	21
Other (Percent)	0	3
Demographics at Time of First Interview		
Number of Biological Children, Including Focal Child (Average)	1.9	2.1
Relationship to Child and Residency Status		
Biological Father (Percent)	96	94
Resident Biological Father (Percent)	69	64
Nonresident Biological Father (Percent)	28	30
Resident Father Figure (Percent)	2	3
Nonresident Father Figure (Percent)	2	3
Married to Biological Mother (Percent)	40	37
Educational Attainment		
Less than High School (Percent)	7	6
Some High School (Percent)	30	35
High School Graduate (Percent)	40	35
College/Vocational School or More (Percent)	23	24
Employment		
Employed in Past Three to Six Months (Percent)	85	86
Average Income in Past Month (Dollars)	1,263	1,247
Sample Size	108	168

SOURCE: Newborn Study 1/3-, 6-, and 14-month father interview data files.

NOTE: Pairwise *t*-tests between the fathers who completed two interviews and the fathers who were not included in the analysis sample indicated that there was one significant difference between the two groups (indicated by the asterisk).

Table I.3 (continued)

^aThe first interview was conducted at either the 1/3-month point or the 6-month point and varies for each demographic variable. Demographic information for fathers interviewed at both 1/3 months and 6 months are set equal to the nonmissing responses that occurred at the earliest available period. Demographic information for fathers interviewed at 1/3 months or at 6 months is set equal to the response to the available item at that time period (assuming that the particular demographic item was asked in that interview).

^bIn most cases, the computation of age at the time of the child's birth was based either on the father's birth date and the child's birth date or on the mother's report of the biological father's age at the time of child's birth. When there was no mother interview to supply the child's date of birth or the biological father's age at the time of birth, we based the age on the father's age at the time of the interview.

^cWe based this variable on an item in the 1/3-month father interview, and, in the case of fathers who were not interviewed at 1/3 months, on the corresponding item in the 14-month father interview. If fathers completed both interviews and if there was a discrepancy in the items between the interviews, we checked values for other interview items (such as fluency in English and the amount of reading done in English) and assigned a value consistent with the pattern of responses.

^d $p < 0.05$.

Although the sample for this study is a select one, it has many similarities to the Main Study sample of fathers. Nevertheless, we have not attempted to interpret the findings in terms of all low-income fathers of newborns, or in terms of low-income fathers of newborns who are enrolled in particular kinds of programs. Our findings should be viewed as an intensive longitudinal study of a substantial number of men who were fathers of newborn babies enrolled in programs that serve low-income families. The data provide a glimpse into the lives of men who figure so prominently at the center of public policy debates and initiatives. In addition, the substantial effort required to complete the interviews with the fathers is indicative of the challenges inherent in conducting this type of research. We have provided data collection lessons in this report that are based on our experiences recruiting programs and families to participate in the Newborn Study, for use by researchers who plan to conduct research with low-income fathers and mothers in the context of an intervention program (see Appendix B).

Who Were the Fathers and Their Children?

Our descriptions in this section of the fathers, father figures, and the children of these men are based on demographic information obtained in the first or 14-month interviews. A full description of the characteristics of the Newborn Study sample fathers is critical to understanding the specific activities and parenting behaviors in which the fathers were engaged with their children. The fathers were largely resident biological fathers who continued to live with their children throughout the study period. Most of them had at least a high school education, and most were employed. Relatively few were teenagers at the time of their children's birth.

Most men were resident biological fathers. Nearly all the interviewed men (96 percent) were the biological fathers of the focal children; the remaining 4 percent were nonbiological father figures (Table I.3). These proportions are consistent with the aim of the study to follow a child's biological father from the child's birth through the first years of life.

The men whom we interviewed continued to be present in their children's lives over time. At the time of each interview, most of the men resided in the same home as did the focal child (70 percent at the first interview and 73 percent at the 14-month interview), and about 40 percent were married to the child's mother at each point.

At each interview, fathers reported having an average of two biological children.

Children were healthy at birth, and slightly more than half were boys. Based on the mothers' reports, most of the focal children were healthy at birth. Their average birth weight was seven pounds, and most were born within two weeks of their expected due date. However, 18 percent were born more than two weeks early, and 15 percent had to stay in the hospital after the birth due to medical problems. On average, those who were in the neonatal intensive care unit spent 11 days there. The sample was almost evenly divided between boys and girls (52 percent and 48 percent, respectively).

Most men were older and Hispanic. Most of the men in the sample were in their twenties or older at the time of the birth of their children; the mothers generally were younger than the fathers. The fathers' average age at the time of the birth of their children was 27 years. In contrast, the mothers were 23 years of age, on average.

Mothers were more likely than fathers to be teenagers at the time of the birth. The proportions of parents in our sample who were teenagers (18 years or younger at the time of the child's birth) were 16 percent of fathers ($n = 17$) and 43 percent of mothers ($n = 30$). Most teenaged fathers (87 percent) were paired with mothers of a similar age. Conversely, fewer than half of the teenaged mothers (43 percent) were paired with a teenaged father.

Fathers were primarily (70 percent) from minority racial/ethnic groups. Fathers comprising the largest group identified themselves as Hispanic (38 percent), with the rest identifying themselves about evenly as African American and white. Eighty-six percent of fathers spoke primarily English at home, and 83 percent were born in the United States.

Teenaged fathers' educational attainment improved over time. Overall, the educational attainment of the fathers in the sample increased over the course of the data collection period, but the improvement was a result primarily of the educational gains of the teenaged fathers. At the time of the first interview, 39 percent of all fathers were high school graduates, and 23 percent had college or vocational school training. At the time of the 14-month interview, the proportion who reported high school graduation or the equivalent had increased to 45 percent, and the proportion with college or vocational training had increased to 25 percent.

As would be expected, teenaged fathers had lower educational attainment than did their older counterparts. Over time, however, they made educational gains (with an additional 17 percent reporting a high school education). Teenaged fathers did not differ from older fathers in employment status, but their earnings were substantially lower at both points (Table I.4).

Table I.4: Education Levels and Employment of Fathers in the Newborn Sample, by Age of Father at the Time of the Focal Children's Birth

Characteristics of Interviewed Men	18 and Younger		19 and Older	
	First Interview	14 Months	First Interview	14 Months
Education				
Less than High School (Percent)	12	6	7	3
Some High School (Percent)	77	65	21	19
High School Graduate (Percent)	12	29	44	48
College/Vocational School or More (Percent)	0	0	27	28
Employment				
Employed in Past 3 to 13 Months (Percent)	88	94	84	90
Average Income in Past Month, All Men (Dollars)	753	920	1,363	1,557
Sample Size	15-17		87-90	

SOURCE: Newborn Study 1/3-, 6-, and 14-month father interview data files.

Most fathers were employed, but their income levels were low. Most of the fathers in the analysis sample were employed at the time of the interview or during the months preceding it, although their incomes reported were low.³ Between 9 and 15 percent of the sample reported no employment at either interview. The average income of all the interviewed fathers during the month preceding the survey was nearly \$1,300 at the time of the first interview, which increased to slightly more than \$1,460 at the time of the 14-month interview.

Summary

- The Newborn Study was designed to intensively investigate fathering from the time of the birth of a child through the preschool years. This report focuses on the infant and toddler periods.
- The Newborn Study fathers who completed both a first interview and a 14-month interview, although a select sample of men, are similar to the fathers

³Fathers were asked to report on their employment status since the time of the last interview, which varied from 3 to 13 months.

who completed a 24- or 36-month interview in the main Early Head Start evaluation, and they are similar to the Newborn Study fathers who were not included in our analyses.

- Most of the fathers and children lived together through the children's 14th month. Forty percent of the fathers were married to the mothers of their children.
- The fathers were diverse in their demographic characteristics. Seventy percent were from minority racial/ethnic groups. On average, fathers were 27 years of age at the time of their children's birth; however, 16 percent of the fathers were teenagers. By the time of the 14-month interview, 45 percent were high school graduates (or had an equivalent credential), and 25 percent had obtained high school or vocational training.
- The fathers were working, but their incomes were low. At each interview, more than 80 percent reported that they were employed. Monthly incomes ranged from almost \$1,300 at the time of the first interview to almost \$1,500 at the time of the 14-month interview.

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CHAPTER II

FATHERS' INVOLVEMENT WITH THEIR CHILDREN THROUGH THE FIRST YEAR OF LIFE

One important goal of the study was to learn more about the ways in which fathers are involved in the lives of their children over time. In particular, we examined several aspects of the fathers' involvement with their infants: (1) participation in preparatory activities before the birth of the children; (2) time spent with the children; (3) the frequency of participation in specific activities with the children, as measured at the first interview and at the 14-month interview; and (4) the relationship between prenatal involvement with the children and subsequent involvement with the children.

Fathers Had a High Level of Prenatal Interest and Involvement

The first type of father involvement that we examined occurred before the child was born. We asked both fathers and mothers about the fathers' level of participation in eight activities related to the mothers' pregnancy with the focal child.¹

To develop an overall measure of involvement, we created a summary score from the eight activity items (Table II.1). On average, according to the fathers' reports, the men engaged in nearly seven of the eight activities with the mothers before their children's birth. Attending birth or Lamaze classes with the mothers was the only prenatal activity in which the majority of the fathers did not participate. (It is possible that the mothers did not attend these classes either.) We found no differences in mean prenatal activities scores when we examined the scores by fathers' demographic and descriptive subgroups, such as race, marital status, and whether he was born in the United States. In addition to the various

¹The prenatal activities included going to the doctor with the mother, seeing an ultrasound of the child, listening to the child's heartbeat, and the like. Table II.1 presents a list of the eight activities.

prenatal activities, fathers also were involved in the birth of their children. Most were present at the birth, and nearly all of them visited the mothers and their children at the hospital after the birth. These findings echo findings from the Fragile Families and Child Wellbeing Study, an ongoing survey of a birth cohort of approximately 5,000 children born to unmarried parents. In that study, the overwhelming majority of fathers were present at the birth and visited their children in the hospital afterward (Norland 2001).

Table II.1: Fathers' Interest in and Involvement with the Pregnancy

	First Interview
Years Father Knew Mother Prior to Birth of Child (Average Number)	4.8
Summary Score of Father Involvement Prior to Birth ^a	6.9
Activity (Percentages of Fathers Reporting Each Activity)	
Attended a doctor visit with mother	92
Saw an ultrasound of child	88
Listened to child's heartbeat	92
Talked to child	93
Felt child move	97
Discussed progress of pregnancy with mother	96
Attended birth or Lamaze classes with mother ^b	31
Bought things for child	96
Was with Mother When She Learned of Pregnancy	82
Present at Birth of Child (Percent)	86
Present at Hospital After Birth (Percent)	95
Sample Size	65-79

SOURCE: Newborn Study 1/3-month father interview data files.

NOTE: Questions about involvement prior to birth were asked at the 1/3-month interview only. Our sample consists of all fathers with completed 1/3- and 14-month interviews (N = 79).

^aThe score is the sum of eight binary items in which the father reported that he did or did not perform the given activity with the child's mother before the child was born. Fathers who reported that they accompanied the child's mother to the first prenatal visit (n = 41) were included in the item "attended a doctor visit with mother." One father who learned about the pregnancy after the child was born was assigned a zero for all the activity items. We imputed the total for fathers missing one item, based on the mean of the other nonmissing items; the sum is based on respondents with no more than one missing item. Fathers with two or more items missing have summary scores set to "missing."

^bThe mothers did not report whether they themselves attended birth or Lamaze classes, and the relatively low level of participation of fathers in this activity may well reflect low levels of involvement overall by both parents.

Fathers Remained Part of Their Children's Lives

In Chapter 1, we presented information on resident status in the focal child's home, which represents day-to-day accessibility and availability. In this section, we explore more-complex types of involvement and present findings about the frequency of particular father-child activities and caregiving behaviors.

As we noted, most of the fathers were living with their children at the time of each interview, and the proportion doing so increased over time. Furthermore, most fathers had lived with their children at some point during the children's lives, even if they were nonresident at the time they were interviewed. In addition, the proportion currently *or ever* living with their children remained stable: 77 percent at the time of the first interview, and 78 percent at the 14-month interview (Table II.2).

Over time, some nonresident men moved away from their children. Although a consistent proportion of the 21 nonresident fathers lived nearby (within 2 miles), an increasing proportion (from 19 to 33 percent) lived more than 10 miles from their children.

Fathers Reported Spending Time with Their Children Daily. At the first interview, the vast majority of men (90 percent) reported that they spent at least one hour alone with their children every day, and 6 percent reported that they did so a few times per week. The proportion spending time alone with their children each day dropped somewhat over time, falling to 82 percent at the time of the 14-month interview, with a corresponding increase to 12 percent who did so a few times per week.

We examined the data obtained from interviews with the mothers that corresponded to those of the interviewed fathers and found that the mothers reported similar patterns of time fathers spent with the children. Eighty percent reported that fathers spent at least one hour or more per day with their children, and an additional 14 percent reported that they did so a few times per week.

Although the amount of time that fathers spent alone with their children decreased over time, we found that both the frequency with which the fathers watched their children while the mothers did other things and the percentage of fathers who helped the mothers "a lot" in raising their children increased slightly between the time of the first interview and the time of the 14-month interview. These ratings may be evidence that the decline in time alone with the children was not due to decreased father availability.

The results of the interviews with the mothers did not support the fathers' assessments of the amount of time they spent in caregiving. In fact, we noted a sharp decline in the time spent in that activity. At the first interview, two-thirds of the mothers indicated that the fathers watched the children every day, while they did other things, but fewer than half reported this type of father involvement at the 14-month interview. We are unable to make longitudinal comparisons of the mothers' ratings of either the time that the fathers spent alone with the children or the amount of help that the fathers provided, because these questions were asked of the mothers only once. However, the mothers' ratings of fathers on the two dimensions were lower than the fathers' own ratings on them.

Table II.2: Fathers' Involvement with Their Children

Dimension of Father Involvement with Child	First Interview	14-Month Interview
Father Presence		
Ever Lived with Child (Percent)	77	78
Percentage of Current Nonresident Fathers Living: ^a		
<2 miles from child's home	52	48
2 to <5 miles from child's home	19	14
5 to 10 miles from child's home	10	5
>10 miles from child's home	19	33
Time Spent with Child and Caregiving Responsibility		
Father Report of How Often He Spent at Least One Hour Alone with Child (Percent)		
Every day	30	82
A few times per week	6	12
A few times per month or less	4	6
Mother Report of How Often Father Spent at Least One Hour Alone with Child (Percent) ^b		
Every day	80	—
A few times per week	14	—
A few times per month or less	5	—
Father Report of How Often He Watched Child While Mother Did Other Things (Percent)		
Every day	58	61
A few times per week	25	25
A few times per month	7	7
Once or twice	4	2
Never	7	5
Mother Report of How Often Father Watched Child While She Did Other Things (Percent) ^b		
Every day	66	46
A few times per week	16	31
A few times per month	8	13
Once or twice	5	1
Never	5	9
Father Gave Mother "a Lot" of Help with Child (Percent)	72	79
Mother Report that Father Gave Her "a Lot" of Help with Child (Percent)	—	70
Sample Size	55-108	55-108

SOURCE: Newborn Study 1/3-, 6-, and 14-month father interview data files and 1/3- and 14-month mother interview data files.

^aTwenty-one fathers were nonresidents.

^bThese interview data include a mother only if we interviewed the father at the interview period.

Fathers' Activities with Their Children Were Rich and Varied

We asked about other father-child activities spanning play and other routine activities, as well as caregiving behaviors, and we asked the fathers how frequently these activities occurred (from "not at all" to "more than once a day"). Mothers rated the frequency of the fathers' behaviors in the same way. Table II.3 shows the percentages of fathers who engaged in particular activities with their children at least once daily at the time of each interview.²

Fathers engaged in many different activities with their children, and at high levels. They performed numerous caregiving tasks, such as preparing food, feeding their children, and putting the children to bed, and they played with their children in a variety of ways. The proportions who reported engaging in activities at high frequencies for the most part remained stable over time, although the proportions reporting involvement with particular activities fluctuated. For example, the proportions of fathers who reported bouncing their children on their knees and playing with their children decreased substantially over time, whereas the proportions reporting that they read stories, told stories, sang nursery rhymes, and the like increased (although to lesser degrees).

When we conducted a side-by-side comparison of the mother and father ratings, we found that mothers consistently rated the fathers' activities as occurring less frequently than the fathers had reported (Table II.4). For example, the proportion of mothers who reported that the fathers changed diapers daily was 20 percentage points lower than the proportion of the same fathers who reported performing this activity daily. However, when we examine the rank ordering of the activities, we do see some correspondence between the mothers' and the fathers' reports. That is, some of the activities that fathers engaged in most frequently were similar regardless of which parent was the reporter, although the magnitude of the ratings was higher among fathers' self-reports than among mothers' self-reports. Mothers reported that fathers engaged in the following five activities most often: (1) teasing the child to make him or her laugh, (2) changing diapers, (3) dancing with the child, (4) playing chasing games, and (5) singing songs/playing peek-a-boo. Compare those activities with the activities that the highest percentage of fathers reported engaging in every day: (1) changing diapers, (2) teasing the child to make him or her laugh, (3) putting the child to bed, (3) singing songs, and (4) playing chasing games. Mothers were somewhat less likely to rate fathers as engaging in caregiving activities at least once per day than they were rate them as engaging in play activities that frequently. In contrast, the fathers' self-ratings included several caregiving activities at high levels, as well as play behaviors.

²In this discussion, we consider only activities that could conceivably occur that often. The summary scores reported in the discussion of the relationship between fathers' prenatal involvement and subsequent involvement with their children are based on all the activities items asked of the fathers.

Table II.3: Proportion of Fathers Who Reported Performing Each Activity at Least Once Daily, by First and 14-Month Interviews

Activity ^a	First Interview	14-Month Interview
Items Asked at 1/3, 6, and 14 Months		
Playing with Child ^b	80	36
Giving Child a Bottle	75	70
Preparing Bottles or Food for Child	69	62
Putting Child to Bed	68	59
Changing Diapers	67	76
Dressing Child	59	56
Singing Songs to Child	44	52
Getting Up When Child Wakes During the Night	42	38
Bathing Child	37	35
Sample Size	101-106	101-106
Items Asked at 6 and 14 Months		
Bouncing Child on Knee	60	10
Playing Peek-a-Boo	59	39
Taking Child for Ride on Shoulders/Back	39	50
Tossing Child in Air	37	53
Reading Stories	30	40
Telling Stories	29	34
Singing Nursery Rhymes	28	35
Sample Size	88-90	88-90
Caregiving Items Asked at 6 and 14 Months^c		
Feeding Child	99	94
Diapering Child	94	94
Putting Child to Bed	89	95
Preparing Bottles or Food for Child	89	90
Bathing Child	72	80
Sample Size	84-87	84-87

SOURCE: Newborn Study 14-month father interview data files and 14-month mother interview data files.

^aThe father-child activities reported here are items asked in both the 14-month mother interview and the 14-month father interview. The sample size for each variable was restricted to the families for which we have a nonmissing response from the father and the mother. The percentages in the table indicate the proportion of respondents who reported that the father performed the mentioned item "once a day" or "more than once a day."

^bThe particular types of father-child play mentioned in the items differ across the first two time periods. In the 1/3 month interview, the item asked how often fathers played with their children by tickling them/blowing on their bellies. At six months, the fathers were asked how often they played together with toys. The 14-month item is most similar to the 6-month item, although it differs from the 6-month item in that it gives examples of toys used to build things.

^cFathers were asked whether they helped to provide care on a typical day spent with their children by performing each of the five activities listed.

Table II.4: Percentage of Fathers Engaging in Activities with Their Children at Least Once Daily at 14 Months, by Fathers' Reports and Mothers' Reports

Activity ^a	14-Month Mother Reports	14-Month Father Reports
Changing Diaper	61	81
Teasing Child to Get Him/Her to Laugh	75	73
Putting Child to Bed	46	66
Singing Songs	48	64
Playing Chasing Games	56	62
Dancing with Child	57	57
Tossing Child in Air	46	57
Rolling/Tossing/Playing Games with Ball	39	57
Helping Child Get Dressed	39	57
Bouncing Child on Knee	39	53
Taking Child for Ride on Shoulders/Back	44	50
Playing Peek-a-Boo	48	46
Singing Nursery Rhymes	30	42
Reading Stories	27	40
Telling Stories	25	36
Playing Together with Toys for Building Things	33	36
Giving Child a Bath	22	36
Playing Outside in the Yard, Park, or Playground	24	30
Sample Size	64-67	64-67

SOURCE: Newborn Study 14-month father interview data files and 14-month mother interview data files.

^aThe father-child activities reported here are items asked in both the 14-month father interview and the 14-month mother interview. The sample size for each variable was restricted to those families for which we have a nonmissing response from both the father and the mother. The percentages in the table indicate the proportion of respondents who reported that the father performed the mentioned item "once a day" or "more than once a day."

Does Prenatal Involvement Predict Subsequent Father-Child Activities?

Fathers' prenatal involvement was related to later father-child activities, as reported by the fathers.³ We found a significant positive correlation of 0.30 between the father-reported

³The father-child activities score discussed here is the summed score of the raw father-child activities items that appear in the three-month father interview standardized into *T*-scores (mean = 50; standard deviation = 10). Most of the father-child activity items concerned caregiving and play activities, as would befit the age of the children in question, although the number and content of the items changed over time. The rating scales had six points, which we recoded so that higher scores indicated more frequent engagement in activities. We considered the items suitable for summing if the overall alpha was at least 0.65, if item-total correlations ranged between 0.20 and 0.80, and if no individual item lowered the overall standardized alpha. We report raw scores here, although, where noted,

prenatal involvement scores and the father-reported activities with their children at 3 months ($p < 0.01$), although the correlations declined over time (to 0.23 at 6 months, and to 0.06 at 14 months).⁴ *T*-tests of father-child activities within subgroups of men who were engaged in different prenatal activities showed that men who had accompanied mothers on their first prenatal visit had higher subsequent father-child activity scores than did men who did not go on this visit (Table 11.5). Men who had been present at the child's birth had higher father-child activities at three months than did men who were not present, although these differences did not remain significant over time.

Summary

- Most fathers lived with their children and frequently spent time with them as their sole caretakers. The proportion who did so declined between the first and 14-month interviews but remained high at each time point. Mothers reported lower, but still high, proportions of fathers spending time alone with their children at the time of the first interview.
- Fathers tended to engage frequently in a variety of activities with their children, including both play and caregiving tasks. Mothers reported a lower frequency of occurrence of engagement in the activities, but they listed activities roughly in the same rank order as the fathers did.
- Most fathers participated in prenatal activities with the mother, and participation was associated with subsequent father-child activities. Men who attended the first prenatal visit reported more frequent father-child activities at both subsequent interviews. Men who were present at the birth of their children reported more frequent father-child activities at the three-month interview.

(continued)

we report standardized *T*-scores in some tables. In contrast to the rest of the report, we report here the results of father-child activity ratings for all three periods, rather than for only two periods. We chose to report all three periods because the content of the items changed over time, which makes it difficult to combine scores from two points. We felt that retaining scores at three points would be truer to the developmental focus of these items than would reporting scores on a smaller number of commonly performed activity items.

⁴We were not able to construct a parallel measure from the mothers' reports, because the same items were not asked in the mother interview.

Table II.5: Mean Father Activities with Their Children at Each Time Point, by Father and Child Subgroups

Subgroup Characteristic	Father-Child Activities Standardized Total Score		
	3-Month Interview	6-Month Interview	14-Month Interview
Child Characteristic			
Stayed in Hospital After Birth Because of Medical Problems ^a	47.2 (49.9)	48.1 (51.0)	45.2* (50.3)
Father Activities (Prenatal)			
Present When Child Was Born ^a	50.3** (40.5)	48.5 (46.6)	49.4 (44.4)
Accompanied Mother on First Prenatal Visit ^a	51.3* (46.6)	50.7 (46.2)	50.9* (44.5)
Sample Size	66-72	50-84	65-97

SOURCE: All subgroup variables, unless noted, were created from items in the 1/3 month father interview. The father-child activity total scores items were created from the available items at each father interview time point.

NOTE: T-tests of differences between fathers of a particular demographic/descriptive group and the rest of the interviewed sample. The value in each cell is the mean father-child activity score for fathers of that subgroup when compared with the mean father-child activity score for the rest of the interviewed fathers (shown in parentheses).

*These interview data are from 1/3 month mother interviews but are included only if we interviewed the father at the interview period.

* $p < 0.10$.

* $p < 0.05$.

** $p < 0.01$.

CHAPTER III

HOW FATHERS INTERACT WITH THEIR 6- AND 14-MONTH-OLD CHILDREN

The literature on fathering lacks specific information on how fathers, particularly low-income fathers, interact with their children. The Newborn Study attempted to fill the gap by videotaping father-child play at different points in time.

For the most part, the men who agreed to be videotaped were the same men who completed interviews (see Table I.1). We did not restrict the videotape sample in the way that we restricted the interview data, by limiting it to men who had completed two videotapes. However, the men on whom we report in this chapter are demographically similar to the group discussed in Chapter I (Table III.1). In this chapter, we consider both the behaviors of fathers in the Newborn Study across various dimensions of parenting (for example, affect, responsiveness, and language) and the behaviors of the study's focal children (for example, affect, emotional regulation, persistence, and language).¹ We begin by briefly discussing the methods that we used to conduct the analysis of these behaviors. We then summarize the ways in which fathers interact with their 6- and 14-month-old children and examine the children's behaviors during interactions with their fathers within and across these ages. Finally, we report on relationships between the behaviors of the fathers and the behaviors of their children.

Methods

At 6 and 14 months, we videotaped fathers and children playing with toys that the interviewers had provided. The infant toys for the 6-month-old children were provided in two bags, and the infant-toddler toys for 14-month-old children were provided in three bags. We asked the fathers to play with their child as they normally would, and we videotaped the interactions.

¹Appendix A contains details, descriptions, and additional analyses of the father and child behaviors that we measured.

Table III.1: Demographic Information on Fathers Who Completed the 6-Month and/or 14-Month Videotaped Interactions

Characteristics	Completed 6-Month Interaction	Completed 14-Month Interaction
One-Time Demographics^a		
Age at Time of Child's Birth (Years) ^b	25.8	25.4
Born in United States (Percent)	81	82
Speaks Primarily English at Home (Percent) ^c	84	82
Number of Biological Children, Including Focal Child (Average)	NA	2
Race/Ethnicity		
Hispanic (Percent)	35	43
African American (Percent)	33	26
White (Percent)	32	31
Other (Percent)	0	0
Relationship to Child and Residency Status		
Biological Father (Percent)	97	98
Resident Father/Father (Percent)	74	77
Resident Biological Father (Percent)	71	74
Nonresident Biological Father (Percent)	26	24
Resident Father Figure (Percent)	3	2
Married to Biological Mother (Percent)	39	47
Educational Attainment		
Less than High School (Percent)	6	5
Some High School (Percent)	29	29
High School Graduate (Percent)	43	39
College/Vocational School or More (Percent)	22	27
Employment		
Employed in Past 3 to 13 Months (Percent)	81	94
Income Past Month (Average, Dollars)	1,282	1,498
Sample Size	128	90

SOURCE: Newborn Study 1/3-, 6-, and 14-month father interview files.

^aThe first interview was conducted at either the 1/3-month point or the 6-month point and varies for each demographic variable. Demographic information for fathers interviewed at both 1/3 months and 6 months are set equal to the nonmissing responses that occurred at the earliest available period. Demographic information for fathers interviewed at 1/3 months or at 6 months is set equal to the response to the available item at that time period (assuming that the particular demographic item was asked in that interview).

^bIn most cases, the computation of age at the time of the child's birth was based either on the father's birth date and the child's birth date or on the mother's report of the biological father's age at the time of child's birth. When there was no mother interview to supply the child's date of birth or the biological father's age at the time of birth, we based the age on the father's age at the time of the interview.

^cWe based this variable on an item in the 1/3-month father interview, and, in the case of fathers who were not interviewed at 1/3 months, on the corresponding item in the 14-month father interview. If fathers completed both interviews and if there was a discrepancy in the items between the interviews, we checked values for other items (such as fluency in English and the amount of reading done in English) and assigned a value consistent with the pattern of responses.

NA = not available.

To assess the quality of the father-child interactions at the two time points, we used the Caregiver-Child Affect, Responsiveness, and Engagement Scale (C-CARES; Tamis-LeMonda et al. 2001a). The C-CARES rates various parent, child, and dyad behaviors on a five-point Likert scale that ranges from 1 (not observed) to 5 (constantly observed).²

We rated the fathers on positive affect, negative affect, positive touch, negative touch, positive verbal statements, negative verbal statements, teasing, participation with child, responsiveness to nonverbal cues, responsiveness to child vocalizations, emotional attunement, flexibility, intrusiveness, structuring, achievement orientation, toy play, sophistication of play (14 months only), amount of language, and quality of language. Similarly, we rated the children on positive affect, negative affect, emotional regulation, participation with caregiver, responsiveness to caregiver, emotional attunement, persistence, toy play, and amount of communication. Additional child items at 14 months were positive touch, negative touch, play sophistication, and quality of communication.³

We used factor analysis and identified two conceptually meaningful factors of fathers' behaviors at both time points. The first factor—responsive/didactic—characterized fathering behaviors that were positive in affect, positive in verbal statements, participatory, responsive, and emotionally attuned to their children, as well as high in structuring, achievement orientation, language, and toy play. The second—negative/overbearing—characterized fathering behaviors that were negative in affect, touch and verbal statements; intrusive; inflexible; and teasing.

Based on factor analysis of the child items, meaningful factors reflecting positive modes of engagement emerged at both ages. At six months, we identified two child factors: (1) mastery, and (2) social/communication. Mastery comprised emotional regulation and persistence with tasks and toy play and was negatively associated with negative affect and negative touch (measured only at 14 months). Social/communication comprised children's positive affect, participation with and responsiveness to their fathers', and vocalizations.

At 14 months, three factors emerged. The first—mastery—comprised the same child behaviors as did the 6-month mastery factor, but the social/communication factor at 6 months split at 14 months into social and communication. The children's participation, responsiveness, emotional attunement, and positive affect loaded on the social factor, and the amount and quality of their language and their play sophistication characterized the communication factor. Because a developmental progression in children's communicative and play skills takes place at 14 months, we measured two new items in the children at that age (the quality of language and play sophistication), which is likely why the 6-month social/communication factor split into two factors at 14 months.

²We rated 18 parent items and 9 child items at the 6-month videotaped sessions, and 19 parent items and 13 child items at the 14-month sessions.

³We rated these items at 14 months but not at 6 months because a developmental progression in children's communication and play skills occurs in children at roughly 12 months.

How Do Fathers Interact with Their Young Children?

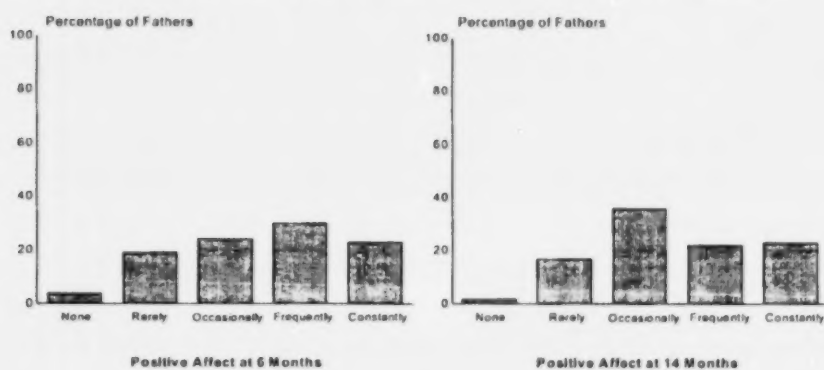
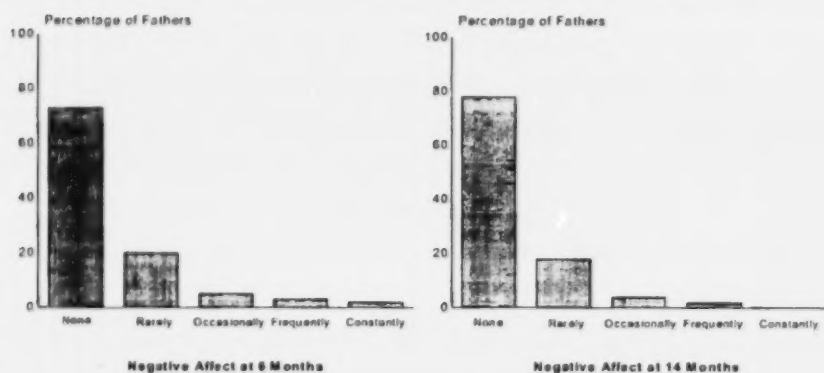
The fathers were actively engaged with and responsive to their 6- and 14-month-old children's bids for attention, as shown by their relatively high scores on such items as participation, responsiveness, and flexibility, and their relatively low scores on such items as negative affect, negative touch, and teasing. This finding suggests that the fathers interacted with their children in a variety of positive ways that transcend the typical portrayal of fathers as "rough and tumble" playmates (Clarke-Stewart 1980; Hossain and Roopnarine 1994; Parke 1996; Stevenson et al. 1988; and Yogman 1981). It also contradicts the stereotype that fathers from low-income minority backgrounds typically parent their children in an authoritarian style (Erlanger, as cited in Erickson and Gecas 1991; and Kohn 1977).

We illustrate these findings by charting the fathers' scores on positive affect, negative affect, flexibility, and intrusiveness at both ages (see Figures III.1 through III.4). However, although the patterns were similar across the two ages, the fathers appeared to interact with their children in more positive and flexible ways at 6 months than they did at 14 months.

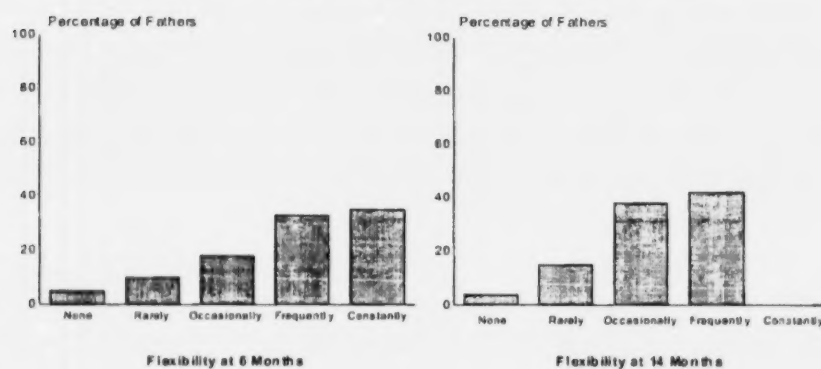
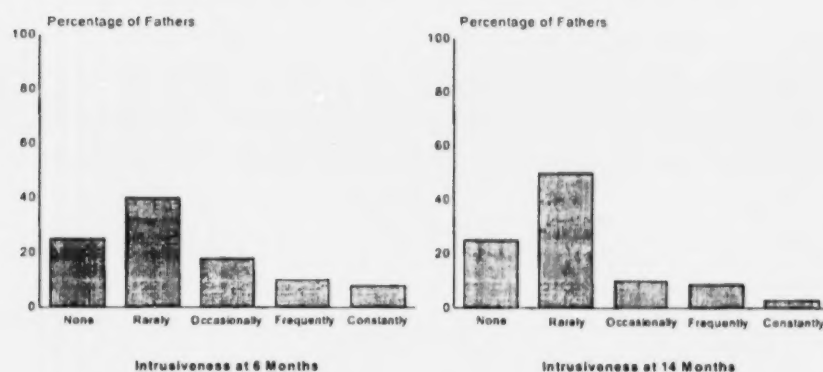
Assessment of the factor scores showed that, at six months, fathers who were more responsive/didactic with their children also were less negative/overbearing (correlation of -0.26 , $p < 0.05$). However, no relationship between the two factors was observed at 14 months. Fathering behaviors were stable over time. That is, the fathers' behaviors on the responsive/didactic factors at 6 months related to their responsive/didactic behaviors at 14 months (correlation of 0.47 , $p < 0.05$). The same, although somewhat weaker, pattern was observed with their behaviors on the negative/overbearing factors at 6 and 14 months (correlation of 0.30 , $p < 0.05$).

How Do Young Children Interact with Their Fathers?

The children played with the toys at both ages, as exhibited by their relatively high scores on the toy play and persistence items. Given that the children enjoyed the toys, and that play is not a stressful activity, it is not surprising that the children had low scores on negative affect. In addition, the children's focused attention on the toys may explain their low scores on the emotional attunement item. At 14 months, the children also received low scores on play sophistication (a measure of whether a child is simply exploring toys or is using them symbolically). This outcome is to be expected, as children play symbolically beginning at 14 months. The children were more involved with and responsive to their fathers at 14 months than at 6 months. They also were more regulated, persistent, and communicative at 14 months of age. These developmental changes demonstrate children's advancements in language and symbolic abilities.

Figure III.1: Father Positive Affect at 6 and 14 Months**Figure III.2: Father Negative Affect at 6 and 14 Months**

SOURCE: Newborn Study 6- and 14-month father-child videotaped interactions.

Figure III.3: Father Flexibility at 6 and 14 Months**Figure III.4: Father Intrusiveness at 6 and 14 Months**

SOURCE: Newborn Study 6- and 14-month father-child videotaped interactions.

The child behaviors were not stable over time. That is, the children's mastery and social/communication factors at 6 months were unrelated to their mastery, social, and communication factors at 14 months (correlation of -0.06 to 0.19 , $p < 0.05$). This instability may be due to the addition of several items at 14 months (including negative touch, quality of language, and play sophistication), or it may reflect discontinuity in development in infants at these early ages.

Are Fathers' Behaviors During Play and Children's Behaviors During Play Related?

At both ages, the fathers' responsive/didactic behaviors were positively associated with their children's social and communication behaviors (correlation of -0.19 to 0.40 , $p < 0.05$). Thus, fathers with higher responsive/didactic scores had infants and toddlers who were more social and communicative during father-child play. These patterns are similar to patterns identified in research on mother-child interactions (see, for example, Baumwell et al. 1997; and Tamis-LeMonda et al. 2001b), and in other research on father-child interactions (Shannon et al. 2002). However, the causal directions of these father-child associations remain unclear, and it is likely that they reflect a bidirectional process. That is, children are far from passive recipients of fathering. Rather, children who exhibit relatively advanced communication and play skills may promote sensitive, didactic interactions in their fathers, and, in turn, will be supported by these positive parenting experiences. Similarly, children who are less capable might be less rewarding social partners, thereby compromising the quality of their fathers' engagements.

Contrary to expectations, the fathers' behaviors at 6 months were not predictive of their children's behaviors at 14 months, and the children's behaviors during infancy were not predictive of fathering at 14 months. The absence of associations between the videotaped father-child engagements over time may be related to the measurement at 14 months of additional items designed to capture children's developing competencies, which changed the number of child factors and the constellation of items in these factors. Given that we focused on direct relationships between father and child behaviors, perhaps other, indirect associations exist that have not been examined, and that should be considered in future analyses (for example, mother-child interactions, the quality of fathers' childhood relationships with their own mothers and fathers, and fathers' current romantic relationships).

Summary

- In most cases, the fathers who participated in the videotaped play situations were the same men who participated in the interviews.
- The children showed high focused attention and low emotional attunement during the play situations. They also generally scored in the low range on play sophistication, although that outcome may have been a result of their age.

- The fathers engaged in many positive parenting behaviors with their children—they showed positive affect and flexibility and infrequently showed negative affect or intrusiveness.
- The positive parenting traits (responsive/didactic) had a positive association with the children's social and communicative behaviors when measured concurrently, although earlier responsive/didactic behavior did not predict the children's later behavior.

CHAPTER IV

FACTORS ASSOCIATED WITH FATHERS' INVOLVEMENT WITH THEIR CHILDREN

The context in which fathering occurs is important, and we therefore were interested in learning more not only about how fathers fulfilled their roles, but about the past experiences and current supports that affected the men's role as a father. This chapter examines fathers' parenting practices and attitudes, perceptions about the support they receive from others for being a father, and other aspects of fathers' psychological well-being. It also compares father-child activities among fathers who score higher and fathers who score lower on various measures of psychological well-being and ends with a description of the men's experiences with their own parents.

Men Had Positive Views of Themselves as Fathers

We expected that men who were confident in their role as fathers would be more interested in interacting with their children than would men who lacked that confidence. To determine whether our expectation was accurate, we asked the men in our sample how they viewed themselves in their roles as fathers. Overall, we found that the men had positive opinions of themselves as fathers, with nearly half indicating that they considered themselves to be very good fathers. By the time of the 14-month interview, the proportion rating themselves as very good increased to slightly more than half, although the proportion who rated themselves as only average increased as well (Table IV.1). Although we cannot interpret high confidence to cause high involvement, men who reported higher confidence as fathers also had higher father-child activity scores at both the first and 14-month interviews ($p < 0.05$ and $p < 0.01$, respectively).

The mothers reported that the fathers helped to support their children in a variety of ways, most commonly by buying clothing, toys, or presents, and less frequently by paying for medical costs, such as doctors' appointments or medicines. (Mothers who had Medicaid coverage might not have needed that kind of support from the fathers.) At the 14-month interview, most mothers reported that they, the fathers, and the children spent time together as a family by eating a meal together on a typical day.

Table IV.1: Fathers' Parenting Practices, Attitudes, and Financial Support of Their Children at the First and 14-Month Interviews

	First Interview ^a	14-Month Interview ^a
Fathers' Parenting Practices and Attitudes		
Spanked Child in Past Week (Percent)	—	16
Used Mild Discipline Only (Percent)	—	41
Rating of Ease of Being a Father (Percent)		
Very easy	22	—
Somewhat easy	42	—
Somewhat difficult	29	—
Very difficult	7	—
Rating of Self as a Father (Percent)		
Very good	46	51
Better than average	31	22
Average	15	22
Some trouble being a father	8	5
Mother, Father, and Child Ate a Meal Together on a Typical Day (Percent) ^b	—	81
Financial Support Provided by Fathers^b		
Bought Clothing, Toys, or Presents for the Child "Often" (Percent)	69	—
Paid for Child's Medical Insurance, Doctors' Bills, or Medicines "Often" (Percent)	32	—
Gave Mother Money to Help Out "Often" (Percent)	83	—
Sample Size	55-108	55-108

SOURCE: Newborn Study 1/3-, 6-, and 14-month father interview data files and 1/3- and 14-month mother interview data files.

^aNot all items were asked at both interviews.

^bReported by mothers.

Fathers Valued Literacy

The aims of comprehensive programs for families and children are becoming more focused on children's pre-academic outcomes, such as literacy. Moreover, early literacy skills are important predictors of later outcomes for children. Given these two factors, we were interested in examining fathers' attitudes that might promote literacy in their children. The fathers rated their attitudes toward two activities on four-point scales, with the highest possible score (indicating the strongest positive attitude on each item) an eight. We found that fathers valued reading to or talking with their children. Not only did the fathers believe that reading and talking to their children were important activities, but their attitudes remained stable between the time of the first interview and the time of the 14 month

interview (ratings of 7.0 and 6.9, respectively). Both scores are the equivalent of answering between "mildly agree" and "strongly agree" on both items.

Many Fathers Used Mild Discipline; Some Spanked

Harsh disciplinary practices can be harmful to children, and Early Head Start programs encourage parents to use age-appropriate alternatives to physical punishment. In fact, the Early Head Start program had a significant impact on reducing the incidence of spanking by fathers (Administration for Children, Youth and Families 2002). At the 14-month interview, we asked about disciplinary practices and found that 16 percent of the fathers had spanked their child during the week preceding the interview. Forty-one percent reported using only mild (nonphysical) forms of discipline in response to three hypothetical situations.

Fathers Faced Many Psychological Stressors

We asked the fathers about their level of satisfaction with several aspects of their lives, most of which encompassed material and financial areas. On average, the fathers responding to the questions at the first interview reported satisfaction with their quality of life equivalent to answering each question somewhere between "somewhat dissatisfied" and "somewhat satisfied." Scores remained the same at the 14-month interview (the average was 22 at both interviews; Table IV.2).¹

Considering the relatively low levels of life satisfaction reported, it is not inconsistent that depression was common among the fathers. Forty percent of the fathers scored "at risk for depression" in at least one interview, and 23 percent scored in the moderate to severe range in at least one interview (not shown in table). Nine percent of the fathers scored in the moderate to severe range in both interviews.

Similarly, more than half of the fathers reported at the first interview that they had high levels of parenting distress, and more than half did so at the 14-month interview.² In each interview, 51 percent of the fathers had reached the cut point for high parenting distress.

¹We asked the fathers about their satisfaction with eight different aspects of their quality of life (primarily material/financial). Items included occupation/job, job security, income, money for family necessities, ability to handle financial emergencies, amount of money owed, level of savings, and money for future needs. The fathers rated their degree of satisfaction on four-point scales, with higher values indicating more satisfaction. Summed scores had a possible high score of 32 and a possible low score of 8. The actual range was 10 to 32.

²We measured parental distress using the Parenting Stress Index, a scale with two subscales: (1) Parenting Distress, and (2) Parent-Child Dysfunctional Interaction (Abidin 1995). Cut points for high stress levels are 23 or higher on the Parenting Distress subscale and 15 or higher on the Parent-Child Dysfunctional Interaction subscale.

Considered together, 36 percent of the fathers had high parenting distress scores at both interviews (not shown in table).

Parent-Child Dysfunctional Interaction scores were moderately high at the first interview and increased over time. Twenty-eight percent of the fathers scored in the high range on the subscale, increasing to 40 percent at the 14-month interview.

Most fathers were physically healthy. Only a small minority reported that they were in poor or only fair health.

Fathers Had Satisfying Interpersonal Relationships

In contrast to the high levels of psychological stressors that many of the fathers faced, the fathers rated their home environments as relatively low in conflict, and these low levels remained unchanged over time.³ Most of the fathers in the Newborn Study were living with their children's mothers, and most therefore rated that relationship and home environment. In addition, the fathers generally rated their relationships as harmonious and fulfilling. On average, their answers to six items that presented such statements as "My spouse/partner listens to me when I need someone to talk to" fell somewhere between "mildly agree" and "strongly agree."⁴

The level of discord between the fathers and the mothers was low and remained so (despite slight increases between the time of the first and 14-month interviews). For example, the proportion of fathers who reported that they got along very well or better with their children's mothers was high, although it declined somewhat over time (75 percent and 68 percent for the first interview and 14-month interview, respectively). The fathers' average level of disagreement with the their children's mothers also increased over time, but the levels were very low at both points.⁵

High percentages of the fathers reported that they got along well with their own families and friends, and this percentage remained stable over time. Fewer than half of the fathers

³We used four items from the Family Environment Scale to measure the level of conflict in the home environment (Moos and Moos 2002). The items (for example, "We fight a lot") are rated on a four-point scale that ranges from 0 to 12.

⁴We used the six-item Love and Relationship Scale (LRS) to assess the quality of the relationship with spouse or partner (Braiker and Kelley 1979). The items are rated on four-point scales. We recoded negatively worded items so that higher scores were associated with more-positive relationships. Total scores can range from a low of 6 to a high of 24.

⁵This score was the sum of five items asking about the level of disagreement with the child's mother about how the child should be raised, how much time the father should spend with the child, and so on. Scores can fall between 0 and 12, with 12 indicating a great deal of disagreement on all items.

Table IV.2: Fathers' Emotional and Physical Well-Being

Mental/Physical Health Indicator	First Interview	14-Month Interview
Quality of Life		
Quality-of-Life Total Score (Mean) ^a	22	22
Somewhat to Very Satisfied with Quality of Life (Percent)	43	41
Depression and Stress		
Average Depression (CES-D Total Score)	10	11
At Risk for Depression (Percent with CES-D ≥ 16) ^b	27	27
Moderate or Severe Depression (Percent with CES-D ≥ 21)	14	19
Stressful Events (Mean Count) ^c	1.3	1.3
Parental Distress (Mean Score) ^d	24	23
Parent-Child Dysfunctional Interaction (Mean Score)	15	15
High Parental Distress (Percent)	51	51
High Parent-Child Dysfunctional Interaction (Percent)	28	40
Disagreement with Child's Mother (Mean Score) ^e	1.6	2.7
Physical Health		
Self-Rating of Health as Poor or Fair (Percent)	11	13
Interpersonal Relationships		
Conflict in the Home (Mean Score) ^f	0.5	0.5
LRS Total Score (Mean) ^g	21	20
Gets Along "Very Well" with Child's Mother (Percent)	75	68
Gets Along "Very Well" with Mother's Family and Friends (Percent)	48	44
Gets Along "Very Well" with Own Family/Friends (Percent)	63	66
Sample Size	54-103	54-103

SOURCE: Newborn Study 1/3-, 6-, and 14-month father interview data files.

^aBased on eight items that asked respondents to rate their satisfaction with aspects of their quality of life. Total scores range from 8 to 32. Higher scores indicate more satisfaction.

^bTotal scores on the CES-D of less than 16 are considered indicative of no depression. Scores of 21 or higher indicate moderate to severe depression.

^cA simple count of the number of stressful events in the past year. It includes such items as, "Have you been robbed, mugged, or attacked in the past year?"

^dParental Distress and Parent-Child Dysfunctional Interaction are two subscales of the Parenting Stress Index. Cut points are made at the 75th percentile of the distribution (based on the norming sample) and indicate high levels of stress. The Parental Distress subscale is based on 12 items; the Parent-Child Dysfunctional Interaction subscale is based on 11 items.

^eThis score was the sum of five items asking about the level of disagreement with the child's mother about how the child should be raised, how much time the father should spend with the child, and so on. Scores range from 0 to 12, with 12 indicating high levels of disagreement on all items.

^fThe conflict subscale of the Family Environment Scale. The scale ranges from 0 to 3, with higher scores indicating more conflict. The subscale is the mean of four items.

^gThe LRS is a six-item measure of the perceived quality of the relationship with one's spouse or partner. The total score ranges from 4 to 24, with higher scores indicating that the father agrees more strongly with statements that he and his partner get along well.

CES-D = Centers for Epidemiological Studies Scale-Depression; LRS = Love and Relationship Scale.

reported they got along very well with the families and friends of their children's mothers, but this percentage also remained fairly stable, with a slight decline over time (48 percent at the first interview and 44 percent at 14 months).

Perceived Influence and Support for Fathering Was High

Whether fathers believe that they have an important role in making decisions about their children might influence their willingness to take on a fathering role. We found that the fathers in our study considered themselves active participants in decision making about their children, although the percentage with this perception declined somewhat over time. The fathers' perceptions of their influence on the outcome of major decisions were somewhat higher (more influential) at the time of the first interview, when they reported having a great deal of influence, than at the 14-month interview (74 percent versus 62 percent, respectively; Table IV.3).⁶ It is unclear whether these differences are normal fluctuations or are the result of other factors, such as the changing demands of parenting an older child versus a younger one.

Table IV.3: Fathers' Perceived Support for Being a Father

Type of Support (Percent)	First Interview	14-Month Interview
Have a Great Deal of Influence in Decision Making ^a	74	62
Has Someone to Talk to About Being a Father	85	93
Has a Man to Talk to About Being a Father	92	94
Person to Talk to Is "Very Supportive"	89	89
Child's Mother Is "Very Supportive"	93	88
Mother's Family and Friends Are "Very Supportive"	40	42
Own Family and Friends Are "Very Supportive"	51	49
Sample Size	86-102	86-102

SOURCE: Newborn Study 1/3-, 6-, and 14-month father interview data files.

^aThis item was asked differently across the waves of the survey. At 1/3 and 6 months, the fathers were asked how much influence they had in making major decisions in such areas as child care and health care. At 14 months, they were asked three questions about their influence on their children's day care, religion, and health care. The 14-month score is the mean of the two items asked at the 14-month interview that match the items in areas mentioned at 1/3 and 6 months.

⁶This was a single item rated on a three-point scale. The average scores lie between "some influence" and "a great deal of influence."

Social support may be another important determinant of how well a father assumes and maintains the fathering role. We found that, overall, the men in our sample felt that they had numerous sources of support for themselves as fathers. Most of the men had someone to talk to about being a father, and this proportion increased by the time of the 14-month interview. Similarly, nearly all the men who reported that they had someone to talk to were able to talk to another man about fathering. People whom the fathers saw or interacted with, such as their own and the mothers' friends and families, were generally supportive; the men rated the mothers of their children as supporting them the most in that role.

A Low Level of Psychological Well-Being Was Inversely Related to Fathers' Involvement with Their Families and Their Children

We examined a number of measures of fathers' involvement with family and children within subgroups of men who had high values and low values on three different dimensions of psychological well-being: (1) parenting stress, (2) parent-child dysfunctional interaction, and (3) depression. We compared mean scores (or proportions) across two categories of each well-being variable.⁷

Although we cannot infer causality, we did observe an inverse relationship between poor psychological status and the fathers' involvement with their children. For example, relative to fathers with more favorable levels of well-being, fathers who were at risk for depression were less involved with their children in nearly every way that we defined involvement. They were less likely to reside in the same home, had lower father-child activities scores, spent less time alone with their children, and performed fewer caregiving behaviors. They also reported higher levels of disagreement with the mothers of their children, less influence in making decisions, less satisfaction with their spouses or partners, and less-harmonious relationships with both their own families and friends and those of the mothers of their children. Our findings for men with high parenting stress levels and high parent-child dysfunctional interaction are very similar to those for men with symptoms of depression (Tables IV.4 through and IV.6). In all likelihood, the relationship is bidirectional; that is, as psychological distress increases, father-child activities diminish, and as father-child activities diminish, psychological distress increases.

Overall, the relatively frequent occurrence of serious psychological disturbances, especially the increased incidence of high parent-child dysfunctional interaction over time, is a cause for concern. The increase may be the result of the changing demands of parenting. Perhaps the fathers were not prepared to cope with the increasing autonomy of a 14-month-

⁷For example, we used accepted cut points on the CES-D scale of less than 16 to indicate those not at risk for depression, and 16 or higher to indicate those at risk. Similarly, we used cut points made at the 75th percentile of the distribution (based on the norming sample) for the Parenting Distress and Parent-Child Dysfunctional Interaction subscales of the Parenting Stress Index.

Table IV.4: Father Relationship and Involvement Variables, by Depression Status

Relationship and Involvement Outcomes	Fathers' Risk for Depression			
	CES-D ≥ 16 at 6 Months	CES-D < 16 at 6 Months	CES-D ≥ 16 at 14 Months	CES-D < 16 at 14 Months
Married to Child's Mother (Percent)				
6 months	19.0*	46.0	NA	NA
14 months	26.0*	48.0	31.0	43.0
Resident Father/Father Figure (Percent)				
6 months	—	—	—	—
14 months	65.0	77.0	50.0**	80.0
LRS Summary Score (Mean)				
6 months	17.7**	21.1	NA	NA
14 months	17.3**	21.1	16.4**	21.0
Gets Along "Very Well" w/Child's Mother (Percent)				
6 months	64.0*	81.0	NA	NA
14 months	44.0**	75.0	39.0**	74.0
Gets Along "Very Well" w/Mother's Family/Friends (Percent)				
6 months	—	—	—	—
14 months	9.2*	11.0	7.7**	11.0
Gets Along "Very Well" w/Own Family/Friends (Percent)				
6 months	—	—	—	—
14 months	7.5	8.1	7.0**	8.3
Influence in Major Decisions (Mean)				
6 months	1.5*	1.8	NA	NA
14 months	1.3	1.6	1.3*	1.6
Level of Disagreement w/Child's Mother (Mean)				
6 months	—	—	—	—
14 months	3.0	2.5	4.2**	2.2
Father-Child Activities T-Score				
6 months	—	—	—	—
14 months	47.0	51.0	44.9*	50.9
Father Spent One or More Hours w/Child Every Day/Almost Every Day (Percent)				
6 months	—	—	—	—
14 months	70.0	84.0	69.0*	86.0
Caregiving Summary Score (Mean)				
6 months	3.9**	4.6	NA	NA
14 months	4.0*	4.6	3.9**	4.6
Sample Size	77-87		91-105	

SOURCE: Newborn Study 6- and 14-month father interview data files for fathers who had two interviews.

NOTE: T-tests of differences between fathers with a CES-D score of 16 or higher (considered to be at risk for depression) and fathers with a CES-D score of less than 16. The value in the first cell corresponds to fathers with depression, and the value in the adjacent cell corresponds to the rest of the fathers. For example, at six months only 19 percent of the fathers with depression were married to their children's mothers, compared with 46 percent of the fathers who were not depressed. Similarly, 26 percent of the fathers who were depressed at 6 months were married at 14 months, compared with 48 percent of the fathers who were not depressed.

CES-D = Centers for Epidemiological Studies Scale-Depression; LRS = Love and Relationship Scale; NA = not available.

* $p < 0.10$.

* $p < 0.05$.

** $p < 0.01$.

Table IV.5: Father Relationship and Involvement Variables, by Parent-Child Dysfunctional Interaction Status

Relationship and Involvement Outcomes	Father High Parent-Child Dysfunctional Interaction			
	PCDI ≥ 15.2 at 6 Months	PCDI < 15.2 at 6 Months	PCDI ≥ 15.2 at 14 Months	PCDI < 15.2 at 14 Months
Married to Child's Mother (Percent)				
6 months	25.0*	48.0	NA	—
14 months	23.0*	52.0	33.0	48.0
LRS Summary Score (Mean)				
6 months	—	—	—	—
14 months	19.2	20.5	18.8*	20.8
Gets Along "Very Well" with Child's Mother (Percent)				
6 months	—	—	—	—
14 months	65.0	69.0	54.0	74.0
Gets Along "Very Well" with Mother's Family/Friends (Percent)				
6 months	—	—	—	—
14 months	10.3	10.7	9.2**	11.0
Gets Along "Very Well" with Own Family/Friends (Percent)				
6 months	7.2**	8.4	NA	—
14 months	7.4*	8.3	7.4*	8.4
Influence in Major Decisions (Mean)				
6 months	—	—	—	—
14 months	1.4	1.6	1.3**	1.7
Level of Disagreement with Child's Mother (Mean)				
6 months	3.6**	1.4	NA	—
14 months	3.2	2.3	3.9**	1.9
Caregiving Summary Score (Mean)				
6 months	—	—	—	—
14 months	4.4	4.5	4.2*	4.6
Reading Attitudes Summary Score ^a				
6 months	5.4**	7.2	NA	—
14 months	6.0*	7.2	6.5*	7.2
Sample Size	77-92		97-107	

SOURCE: Newborn Study 6- and 14-month father interview data for fathers who had two interviews.

NOTE: T-tests of differences between fathers with a PCDI score of 15.2 or higher (75th percentile, based on the normative sample) and those with a PCDI score of less than 15.2. The value in the first cell corresponds to fathers with high PCDI scores, and the value in the adjacent cell corresponds to the rest of the fathers. For example, 25 percent of the fathers with high PCDI scores at six months were married to the mothers of their children, compared with 48 percent of the fathers with lower PCDI scores. Similarly, 23 percent of the fathers with high PCDI scores at 6 months were married at 14 months, compared with 52 percent of the fathers with lower PCDI scores.

^aThis is the sum of two items asking fathers to rate the importance of reading to or talking with a child.

LRS = Love and Relationship Scale; NA = not available; PCDI = Parent-Child Dysfunctional Interaction.

* $p < 0.10$.

** $p < 0.05$.

** $p < 0.01$.

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Table IV.6: Mean Scores for Father Relationship and Involvement Variables, by Parental Distress

Relationship and Involvement Outcomes	Father High Parenting Distress			
	PD $\geq$ 23 at 6 Months	PD <23 at 6 Months	PD $\geq$ 23 at 14 Months	PD <23 at 14 Months
LRS Summary Score (Mean)				
6 months	—	—	—	—
14 months	19.3*	21.0	19.0*	21.1
Gets Along "Very Well" with Child's Mother (Percent)				
6 months	—	—	—	—
14 months	60.0	75.0	56.0	76.0
Gets Along "Very Well" with Own Family and Friends				
6 months	7.6**	8.5	NA	NA
14 months	7.4**	8.7	7.4**	8.6
Influence in Major Decisions (Mean)				
6 months	—	—	—	—
14 months	1.4	1.6	1.4*	1.6
Level of Disagreement with Child's Mother (Mean)				
6 months	2.7*	1.3	NA	NA
14 months	3.2*	1.9	3.3*	2.1
Caregiving Summary Score (Mean)				
6 months	—	—	—	—
14 months	4.3*	4.7	4.4	4.5
Reading Attitudes Summary Score ^a				
6 months	6.3**	7.2	NA	NA
14 months	6.5*	7.2	6.5**	7.3
Summary Score	76-92		94-108	

SOURCE: Newborn Study 6- and 14-month father interview data for father sample who had two interviews.

NOTE: T-tests of differences between fathers with a PD score of 23 or higher (75th percentile, based on the normative sample) and fathers with a PD score of less than 23. The value in the first cell corresponds to fathers with high PD scores, and the value in the adjacent cell corresponds to the rest of the fathers. For example, fathers who had high PD scores at 6 months scored lower on the LRS compared to fathers with lower PD scores (19.3 and 21.0, respectively).

^aThis is the sum of two items asking fathers to rate the importance of reading to or talking with a child.

LRS = Love and Relationship Scale; NA = not available; PD = Parenting Distress subscale.

* $p < 0.10$.

* $p < 0.05$.

** $p < 0.01$.

old child as opposed to that of a much younger child. It is also possible that high levels of parenting stress may be idiosyncratic to our sample. These men had overall higher depression, Parenting Distress, and Parent-Child Dysfunctional Interaction scores than did the men in the main Early Head Start study when the children were 36 months old (Administration for Children, Youth and Families 2002). Despite these problems, the fathers in the Newborn Study sample did report high levels of interpersonal support for

their role, and they also reported having high satisfaction and low conflict in their romantic relationships. Given that it is possible that the quality of these relationships buffered the effects of other stressors, providing support for relationships may be one way that programs can support fathers and families.

Fathers' Relationships with Their Own Parents Were Important

Fathers' childhood experiences may be an important determinant of the way in which they approach their parenting role. In the sections that follow, we summarize findings about the men's living arrangements as children, their relationships with their mothers and fathers, and the way that the quality of those relationships related to the men's later parenting behaviors.

Most fathers lived with both parents at some point during childhood. The fathers' experiences as children in their own families may have influenced the way that they developed and have behaved as fathers. We asked the fathers about the amount of time they spent living with a father or father figure during their own childhoods because these experiences could provide a model for men as they take on a fathering role. We asked the questions so as to span four periods of their lives: (1) until the age of 5 years, (2) age 6 through age 10, (3) age 11 through age 15, and (4) age 16 through age 18. We then assessed the number of those periods in which the men reported having lived with their fathers (or father figures). Most (74 percent) of the men indicated that they had lived with their fathers/father figures during at least one of the periods (Table IV.7). Many (42 percent) of them reported that they had done so during some or all of the four periods. Although most of the men had some experience living with their fathers, one-quarter did not live with their fathers at any point during their childhood and therefore may not have had much opportunity to observe a man model fathering behavior.

Fathers rated their relationships with their own parents positively. Regardless of whether a parent was present in the home while the father was growing up, the quality of that relationship (warmth and acceptance versus distance and rejection) might influence his later ideas of what it means to be a parent.^a We asked the men to rate the relationships they had had with their fathers and their mothers while they growing up by presenting them with

^aTo rate the fathers' relationships with their own parents, based on experiences with them during childhood, we used the Parent Acceptance-Rejection Questionnaire (PARQ) (Rohner 1984; and Sherman and Donovan 1991). We computed a summed total score based on 12 items rated on four-point scales. On average, the fathers reported having had more-positive relationships with their biological mothers than with their biological fathers (average PARQ scores of 44 and 40, respectively), equivalent to answering each item somewhere between "sometimes" and "almost always true."

Table IV.7: Characteristics of Father's Family and Experiences While Growing Up

Household Characteristics While Growing Up	
Living with Father ^a	
Living Arrangements During Childhood (Percent)^b	
Age ≤5 Years	65
Age 6–10 Years	62
Either Period	70
Living Arrangements During Adolescence (Percent)^b	
Age 11–15 Years	53
Age 16–18 Years	52
Either Period	56
Living Arrangements During Multiple Time Periods (Percent)^b	
Age ≤10 Years ^c	57
Age 11–18 Years ^d	49
Any Period ^e	74
Age ≤18 Years ^f	42
Parents' Treatment While Growing Up	
Quality of Relationship with Parents	
Average Father PARQ Score ^g	40
Average Mother PARQ Score ^h	44
Sample Size	76–102

SOURCE: Newborn Study 6- and 14-month father interview data files.

^aThis category represents the presence of a father or father figure in the home, and "father" could be an adoptive/stepfather, a father figure, or the biological father. Thus, if a father reported having a father during multiple time periods, he may not necessarily have been referring to the same "father." In addition to the father/father figure, other adults, including the mother, also may have been living in the home.

^bWe asked fathers whom they lived with while growing up. Specifically, we asked whom they lived with when (1) 5 years of age or younger, (2) age 6 through age 10 years, (3) age 11 through age 15 years, and (4) age 16 through age 18 years.

^cWhen younger than age 6 and 6 through 10.

^dWhen age 11 through 15 and 16 through 18.

^eAny of the four time periods.

^fWhen younger than age 6, 6 through 10, 11 through 15, and 16 through 18.

^gThe father PARQ Total Score is a summation of the ratings that each father gave to statements to describe the way that his father or father figure treated him while he was growing up. Select items were reverse-coded, so that higher numbers correspond to better reports. All the items are on a scale of 1 ("almost never true") to 4 ("almost always true"), and the summation score has a true range of 12 to 48 (actual range is 14 to 48).

^hThe mother PARQ Total Score is a summation of the ratings that each father gave to statements to describe the way that his mother or mother figure treated him while he was growing up. Select items were reverse-coded, so that higher numbers correspond to better reports. All the items are on a scale of 1 ("almost never true") to 4 ("almost always true"), and the summation score has a true range of 12 to 48 (actual range is 23 to 48).

PARQ = Parent Acceptance/Rejection Questionnaire.

such items as "paid a lot of attention to me" and "seemed to dislike me." The men rated the quality of their relationships with their fathers and mothers quite positively, although they rated their relationships with their mothers slightly more positively.

How do men's experiences with their fathers relate to their own fathering behaviors? The idea that men with inadequate male role models might have more difficulty behaving as parents led us to examine the parenting behaviors of men who did not live with their fathers (or with father figures) and the parenting behaviors of men who had had poor relationships with their fathers relative to the rest of the sample. We found that, contrary to expectations, men who reported that they never had lived with their fathers through age 18 were significantly *more* likely to engage in father-child activities at a higher frequency than were the men in the rest of the group. The pattern held for both the first interview and the 14-month interview ($p < 0.05$ and $p < 0.10$, respectively). Although we cannot make causal inferences, we can surmise that men who grew up without fathers might have been more highly motivated to invest time and energy into their own children so that their children would not feel the absence a father.

Among the men who rated their relationships with their fathers as poor, we found only a small difference in father-child activities at the first interview ($p < 0.10$), and no differences later.⁹ However, when we examined the data on the men who rated their relationships with their fathers as very positive, we found that these men were more likely to have higher father-child activity scores at the second interview than were the rest of the group ($p < 0.001$).¹⁰ There were no differences in father-child activities at the first interview.

Summary

- Mothers had positive views about the fathers in our sample, and the men also had positive self-images of themselves as fathers.
- Fathers reported that they exhibited desirable parenting attitudes, such as supporting and encouraging literacy in their children, and that they used mild rather than harsh discipline.
- Fathers experienced many psychological stressors but also had numerous social supports that may have buffered some of the effects of stress. The children's mothers were a very important source of support for the men.

⁹We considered men to have given a poor rating on the PARQ if the score fell one or more standard deviations below the sample mean. There were 15 men in that group.

¹⁰We considered men to have given a favorable rating on the PARQ if the score fell one standard deviation above the mean. There were 16 men in that group.

- Fathers' experiences with their own parents were associated with their own fathering behaviors. Those who did not live with their fathers as children were more likely to report frequent father-child activities, as were those who reported a very positive relationship with their fathers.

CHAPTER V

SUMMARY, PROGRAM RECOMMENDATIONS, AND NEXT STEPS

Researchers still have not reached a consensus about which aspects of father presence are important for child development. The Newborn Study, through its unique focus on fathers at such an early point in the lives of their children, the longitudinal design of repeated interviews, and the richness of the data, has enabled us to begin to answer this question.

Through our work with the fathers and families in the Newborn Study, we have been able to examine the ways in which fathers behave with their children, their familial relationships, and the factors associated with their level of involvement with their children. The families in this study are not necessarily the same as other families in similar circumstances, but the research has made it possible for us to understand the ways in which fathers have a presence in their children's lives and to describe the fathers' involvement in and activities with their children with a level of detail not previously possible. We also were able to quantify the types of activities, as well as the frequencies with which fathers engaged in them with their young children.

Overall, the fathers were involved in the lives of their children in many ways that went beyond financial support to include day-to-day caregiving, social activities, and play. Most of the fathers whom we observed interacting with their children were doing so in positive and responsive ways. The study also provided some evidence that men who have a positive relationship with their own fathers engage in more frequent activities with their children. Conversely, stress and other psychological factors, such as depression, have a negative association with father-child activities. As the data collection continues, we will examine the ways in which fathers and fathering in these families change.¹

¹Data collection will conclude when the children are about to enter kindergarten.

Recommendations for Programs

Based on our findings, we make the following recommendations for Early Head Start and similar programs for families and children. We highlight four key findings and identify recommendations for programs wishing to involve fathers.

- **Recognize that men are involved with their children and engage them in program activities as early as possible.** Most of the men in our sample remained meaningfully involved in the lives of their infants and toddlers. These fathers remained with their families and engaged in varied activities with their children. In addition to self-reported behaviors, the men we were able to observe displayed warm and responsive parenting behaviors. Programs may find it easier to engage fathers when the family first enrolls, rather than at a later point, and they may then be better positioned to provide services and supports to the fathers who become involved along with their families.
- **Encourage prenatal involvement.** Although no clear patterns of earlier involvement emerged that were predictive of later involvement, a few characteristics of prenatal involvement were associated in the near term with higher levels of father-child activities. Despite the fact that engagement in these activities was a poor predictor of father-child activities later on, a father's show of interest during the prenatal period may help to solidify a relationship with the mother, an important source of fathering support. Programs might consider encouraging fathers to accompany mothers to doctor visits, childbirth classes, and similar activities as a way of facilitating these bonds.
- **Develop ways to encourage mothers' support of fathers as fathers and provide programmatic support to fathers directly.** The fathers in our sample generally felt supported in their efforts to be fathers. The support came from a variety of family and friends, but, in particular, from the mothers themselves. This support from the mother may be one aspect of family life that programs could emphasize when working with families. Programs also might develop ways to support and encourage fathers, and to help them to view themselves as effective, positive role models and teachers for their children.
- **Be aware of psychological changes and distress.** We found, not unexpectedly, an inverse relationship between the fathers' psychological well-being and their involvement with their children. Men who were experiencing depression or high parenting distress also reported lower levels of activities with their children. In addition, we observed, even in this very involved sample, that the level of parenting distress that many men were experiencing increased over time. It is not clear what was driving that change—whether it was the challenge of adapting to the demands of parenting a child at that developmental stage,

economic pressures, or other factors. Programs should be cognizant of this relationship and should make special efforts to support fathers who are experiencing psychological distress. If they cannot reach fathers directly, they could try to work through mothers as a way of providing fathers with information and links to support services.

Next Steps

The Newborn Study has enabled us to begin to learn about the types of involvement of fathers in families and in the lives of their newborns. It also has given us some insight into implications for programs that wish to serve the type of men whom we studied. This report describes what we know about the men and their children through age 14 months. It answered questions about what men do with their children, and at what frequencies. It also examined possible determinants of higher and lower engagement in these activities. We were not able to answer questions about factors associated with the presence or absence of fathers in the family because we primarily interviewed only men who were present. Other analytic approaches can use the mother interviews to answer questions about which fathers remained present in their children's lives, and which did not.

To obtain a longer-term longitudinal view, the next steps in our research will begin with an examination of interviews at later ages (24 months and, eventually, 36 months). We also will explore qualitative data about the meaning of fatherhood and fathering, and we will consider alternative approaches to answering important research questions in this area. Complementary funding that local researchers received have enabled those researchers to pursue other research questions in depth. Subsequent publications will highlight local research studies as well as cross-site findings.

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APPENDIX A

ANALYSES OF FATHER-CHILD INTERACTIONS AT 6 AND 14 MONTHS

Jacqueline D. Shannon and Catherine S. Tamis-LeMonda
New York University

The quality of parent-child interactions at 6 and 14 months was assessed using the Caregiver-Child Affect, Responsiveness, and Engagement Scale (C-CARES; Tamis-LeMonda, Ahuja, Hannibal, Shannon, & Spellmann, 2001a), which rates various parent, child, and dyad behaviors on a 5-point Likert scale ranging from 1 = "not observed" to 5 = "constantly observed." At 6 months, 18 parent and 9 child items were used, and at 14 months, 19 parent and 13 child items were used. The C-CARES is based on both the Meadow-Orlans (Meadow & Schlesinger, 1976) and the Mahoney (1992) Scales of Mother-Child Interaction, extending these two scales in three ways. First, it adds several variables relevant to children's cognitive status (for example, parent's amount of language, quality of language, and play sophistication). Second, conceptually parallel items are included for parent and child items (for example, items such as "emotional attunement" and "responsiveness" were coded separately for both parents and children). Third, bipolar items have been replaced by separate, unipolar items (for example, "positive affect" and "negative affect" rather than "affect").

Parent items were: positive affect, negative affect, positive touch, negative touch, positive verbal statements, negative verbal statements, teasing, participation with child, responsiveness to non-verbal cues, responsiveness to child vocalizations, emotional attunement, flexibility, intrusiveness, structuring, achievement orientation, toy play, sophistication of play (14 months only), amount of language, and quality of language.

Child items were: positive affect, negative affect, emotional regulation, participation with caregiver, responsiveness to caregiver, emotional attunement, persistence, toy play, and

amount of communication. Additional child items at 14 months were positive touch, negative touch, play sophistication, and quality of communication.¹

For purposes of inter-observer reliability, active teams of two coders viewed eight tapes (six at 6 months and two at 14 months) together and coded separately. During their first observation of the videotaped interactions, the researchers recorded notes and impressions about the overall interaction. In a second pass, they coded the parent's behavior. In a third pass, they coded the child's behavior. Finally, the researchers reviewed their codes together. Any disagreements were discussed, and, if needed, the videotape was reviewed a fourth time until coders achieved consensus.

The final videotapes were coded independently on three passes. For purposes of continued monitoring of inter-observer reliabilities, between 18 and 22 videotapes (14 percent) at 6 months and between 9 and 15 videotapes (10 percent) at 14 months were randomly selected and coded separately by a second researcher. Percent agreement and intra-class correlations were calculated for each item. Percent agreement within one point on the 5-point Likert scale ranged from 87 percent to 100 percent. Correlations ranged from .71 to .97.

RESULTS

Results are presented as follows. First, descriptives of father-child interactions at 6 months and 14 months are presented. Second, exploratory factor analyses for father and child are presented at both ages. Finally, correlations between father and child factor scales at both time points are reported.

Descriptions of Father and Child Behaviors

The means and standard deviations of 6- and 14-month father and child C-CARES items are presented in Tables A.1 and A.2. At both ages, father and child ratings displayed modest to strong variability as indicated by the fact that nearly all items were normally distributed and encompassed the full Likert-scale range (1 to 5).

At both 6 and 14 months, fathers scored highest on positive behaviors, such as participation with child, flexibility, toy play, structuring, and positive affect. Their lowest scores were on more negative behaviors, such as negative affect, negative verbal statements, negative touch, and teasing. To illustrate these patterns, bar graphs of fathers' scores on "positive affect" versus "negative affect" and "flexibility" versus "intrusiveness" are presented at both ages in Figures A.1 to A.4. While these patterns were similar across ages,

¹These items were coded at 14 months and not at 6 months because there is a developmental progression in children's communication and play skills that occurs when children reach 12 months.

surprisingly, fathers appeared to be more responsive to children at 6 months than at 14 months.

Table A.1: Father Behaviors

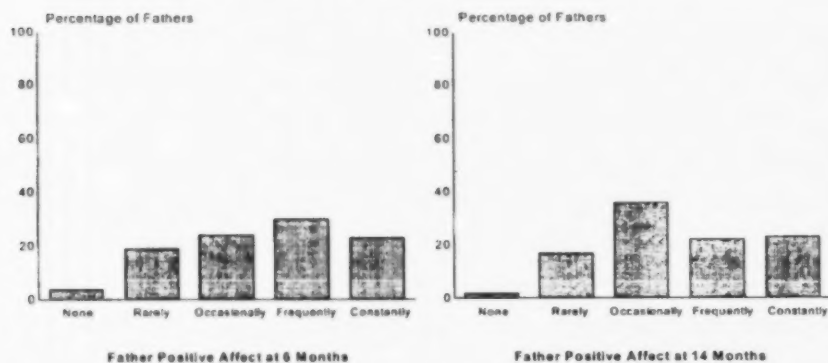
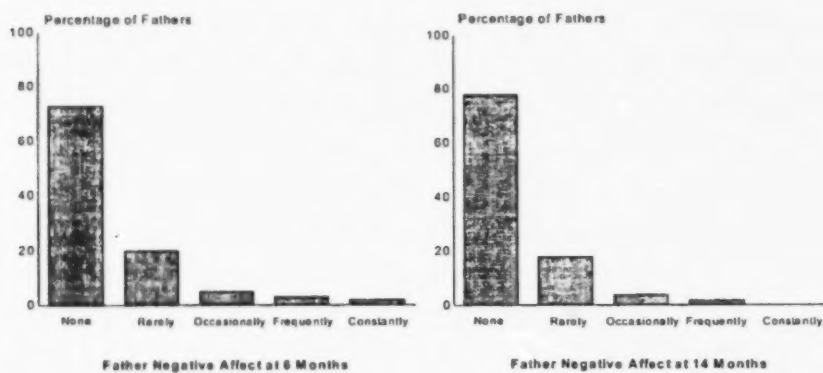
Behavior Items	6 Months			14 Months		
	M	SD	Range	M	SD	Range
Positive Affect	3.50	1.16	1-5	3.50	1.06	1-5
Negative Affect	1.37	.72	1-5	1.29	.59	1-4
Positive Touch	3.53	1.24	1-5	3.41	1.48	1-5
Negative Touch	1.91	1.03	1-5	1.97	1.01	1-5
Positive Verbal Statements	1.67	.91	1-5	2.66	1.46	1-5
Negative Verbal Statements	1.57	.83	1-5	1.62	.94	1-5
Teasing	1.93	1.14	1-5	1.48	.91	1-5
Participation With Child	4.17	.94	1-5	4.52	.86	1-5
Responsiveness To Non-Verbal Cues	3.17	1.10	1-5	2.73	1.22	1-5
Responsiveness To Vocalizations	3.69	1.03	1-5	2.86	1.36	1-5
Emotional Attunement	2.39	1.19	1-5	1.85	.96	1-5
Flexibility	3.88	1.13	1-5	4.20	.85	1-5
Intrusiveness	2.33	1.17	1-5	2.13	.95	2-5
Structuring	3.54	1.19	1-5	3.70	1.20	1-5
Achievement Orientation	2.22	1.16	1-5	2.08	1.06	1-5
Toy Play	3.51	1.07	1-5	3.82	.87	1-5
Play Sophistication	-	-	-	1.72	.67	1-4
Amount Of Language	3.01	1.21	1-5	3.42	1.01	2-5
Quality Of Language	2.77	1.32	2-5	2.49	1.08	1-5
Sample Size	128			90		

SOURCE: Father newborn video data at 6 and 14 months.

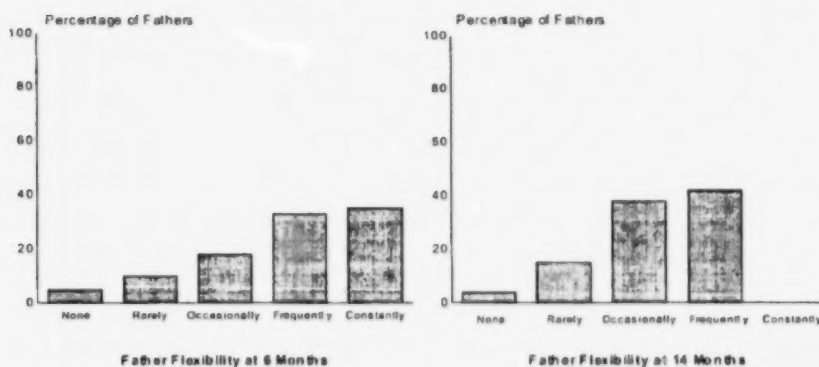
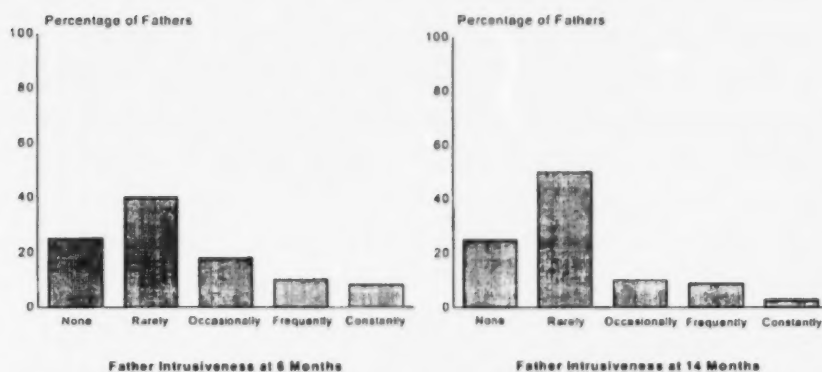
Table A.2: Child Behaviors

Behavior Items	6 Months			14 Months		
	M	SD	Range	M	SD	Range
Positive Affect	2.64	1.11	1-5	2.82	.91	1-5
Negative Affect	1.78	1.05	1-5	1.72	.95	1-5
Emotional Regulation	3.95	1.20	1-5	4.32	.92	1-5
Participation With Caregiver	2.81	.95	1-5	3.70	.98	1-5
Responsiveness To Caregiver	2.85	.99	1-5	3.24	1.14	1-5
Emotional Attunement	1.53	.82	1-5	1.39	.78	1-4
Persistence	3.64	1.22	1-5	4.01	.97	1-5
Toy Play	3.92	1.12	1-5	4.52	.84	1-5
Play Sophistication	-	-	-	1.46	.64	1-4
Amount Of Communication	2.31	1.15	1-5	2.72	1.08	1-5
Quality Of Communication	-	-	-	2.48	1.07	1-5
Sample Size	128			90		

SOURCE: Father newborn video data at 6 and 14 months.

Figure A.1: Father Positive Affect at 6 and 14 Months**Figure A.2: Father Negative Affect at 6 and 14 Months**

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Figure A.3: Father Flexibility at 6 and 14 Months**Figure A.4: Father Intrusiveness at 6 and 14 Months**

At both ages, children were largely engaged with play materials, as exhibited by their relatively high scores on toy play and persistence. Their lowest scores were negative affect and emotional attunement. Children's focused attention with the toy materials may be why they also scored low on emotional attunement. At 14 months, children also obtained low scores on their play sophistication, which would be expected in light of the fact that children are only beginning to play symbolically at 14 months. Children were more involved with and responsive to fathers at 14 months. They were also more regulated, persistent, and communicative at this age.

Factor Analyses of Father and Child Behaviors

Father Factor Analyses. A two-factor solution with varimax rotation for both 6-month and 14-month father behaviors on the C-CARES provided the most meaningful solution (see Table A.3). These solutions parallel those obtained in prior studies using the C-CARES when children were 6 months, 14 months, and 24 months of age (Spellmann, Tamis-LeMonda, & Baumwell, 2000; Shannon, Tamis-LeMonda, London, & Cabrera, 2002).

At both ages, the first factor, labeled *Responsive/Didactic* (12 items at 6 and 14 months), consisted of all positive items: positive affect, positive verbal statements, positive touch,² participation, responsiveness to non-verbal cues, responsiveness to child vocalizations, emotional attunement, structuring, achievement orientation, toy play, amount of language, and quality of language and play sophistication.³ The second factor, labeled *Negative/Overbearing* (6 items at 6 and 14 months), consisted of all negative behaviors: negative affect, negative verbal statements, negative touch, teasing, and intrusiveness and negatively loaded on flexibility. Two factors accounted for 45 percent of the item variance at 6 months and 34 percent of the item variance at 14 months.⁴

The only inconsistencies in the factor loadings across the two ages were "positive touch" and "responsiveness to vocalizations." The "positive touch" item loaded on the *Responsive/Didactic* factor at 6 months; however, it did not load on either factor at 14 months, so it was eliminated from further analyses. The item "responsiveness to vocalizations" only weakly loaded on the *Responsive/Didactic* factor at 14 months. Nonetheless, we elected to retain this variable in creation of the scale score due to its demonstrated validity for children in our research (Tamis-LeMonda, Bornstein, & Baumwell, 2001b; Tamis-LeMonda,

²This item only loaded on the 6-month factor. Although the loading was low on the *Responsive/Didactic* factor (.32) at 6 months, we maintained this item since parental touch (for example, holding) is a common parenting behavior during infancy.

³This item was measured only at 14 months.

⁴A scree plot of the factor eigenvalues 3.8 and 1.9 supported the two-factor solution at 6 months and eigenvalues 4.0 and 2.5 supported the two-factor solution at 14 months.

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At both ages, the first factor, labeled *Responsive/Didactic* (12 items at 6 and 14 months), consisted of all positive items: positive affect, positive verbal statements, positive touch,² participation, responsiveness to non-verbal cues, responsiveness to child vocalizations, emotional attunement, structuring, achievement orientation, toy play, amount of language, and quality of language and play sophistication.³ The second factor, labeled *Negative/Overbearing* (6 items at 6 and 14 months), consisted of all negative behaviors: negative affect, negative verbal statements, negative touch, teasing, and intrusiveness and negatively loaded on flexibility. Two factors accounted for 45 percent of the item variance at 6 months and 34 percent of the item variance at 14 months.⁴

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³This item was measured only at 14 months.

⁴A scree plot of the factor eigenvalues 3.8 and 1.9 supported the two-factor solution at 6 months and eigenvalues 4.0 and 2.5 supported the two-factor solution at 14 months.

Table A.3: Factor Analyses of Father Behaviors at 6 and 14 Months (Varimax Rotation)

Father Behavior Items	6-Month Father Factor Solution		14-Month Father Factor Solution	
	Responsive/ Didactic	Negative/ Overbearing	Responsive/ Didactic	Negative/ Overbearing
Positive Affect	.76		.62	
Negative Affect		.49		.64
Positive Touch	.32			
Negative Touch		.62		.43
Positive Verbal Statements	.58		.46	
Negative Verbal Statements		.46		.42
Teasing		.62		.44
Participation With Child	.73		.53	
Responsiveness To Non-Verbal Cues	.61		.69	
Responsiveness To Child Vocalizations	.37		.21	
Emotional Attunement	.56		.54	
Flexibility		-.86		-.85
Intrusiveness		.86		.75
Structuring	.52		.44	
Achievement Orientation	.79		.39	
Toy Play	.44		.55	
Play Sophistication	-	-	.56	
Amount Of Language	.82		.72	
Quality Of Language	.77		.73	
Sample Size	128		90	

SOURCE: Father newborn video data at 6 and 14 months.

NOTE: Extraction Method: Principal Component Analysis.

Bornstein, Kahana-Kalman, Baumwell, & Cyphers, 1998). The two scales at both ages demonstrated fair to good internal consistency, with a coefficient alpha of .85 for *Responsive/Didactic* and .78 for *Negative/Overbearing* at 6 months, and .77 for *Responsive/Didactic* and .67 for *Negative/Overbearing* at 14 months.

Child Factor Analyses. A two-factor solution with varimax rotation for 6-month child behaviors on the C-CARES provided the most meaningful solution; however, at 14 months, a three-factor solution with varimax rotation provided the most meaningful solution (see Table A.4). The two-factor solution at 6 months paralleled those identified in our prior studies of mother-child interactions with their 6-month-olds (Spellmann et al., 2000). The three-factor solution at 14 months paralleled those identified in our prior research on father-child interactions with their 24-month-olds (Shannon et al., 2002).

The first factor at 6 and 14 months, labeled *Mastery* (4 items at 6 months and 5 items at 14 months), consisted of emotional regulation, persistence, and involvement with toys and negatively loaded on negative affect and negative touch (measured only at 14 months). The second factor at 6 months, labeled *Social/Communication* (5 items), consisted of positive affect, participation with caregiver, responsiveness to caregiver, emotional attunement, and amount of communication. This second factor was split further into two factors at 14 months—

Table A.4: Factor Analysis of 6- and 14-Month Child Behaviors (Varimax Rotation)

Child Behavior Items	6-Month Child Factor Solution		14-Month Child Factor Solution		
	Mastery	Social/ Communication	Mastery	Social	Communication
Positive Affect		.65		.51	
Negative Affect	-.72		-.77		
Positive Touch	-	-			
Negative Touch	-	-	-.56		
Emotional Regulation	.87		.80		
Participation With Caregiver		.90	.51	.71	
Responsiveness To Caregiver		.79		.67	
Emotional Attunement		.77		.80	
Toy Play	.88		.67		
Persistence	.83		.66		
Sophistication Play	-	-			.52
Amount Of Communication	-	-			.85
Quality Of Communication		.38			.77
Sample Size	128		90		

SOURCE: Father newborn video data at 6 and 14 months.

NOTE: Extraction Method: Principal Component Analysis.

Social and Communication. The *Social* factor (4 items) consisted of positive affect, participation with caregiver, responsiveness to caregiver, and emotional attunement. The *Communication* factor (3 items) consisted of amount of communication, quality of communication, and play sophistication. The item "positive touch" was measured only at 14 months; however, this item did not load on any of the three factors and was not included in further analyses.

Two factors accounted for 63 percent of the item variance at 6 months and 55 percent of the item variance at 14 months.⁵ The scales at both ages demonstrated fair to strong internal consistency, with coefficient alphas of .87 for *Mastery* and .76 for *Social/Communication* at 6 months, and .76 for *Mastery*, .64 for *Social*, and .64 for *Communication* at 14 months.

Descriptives Statistics on Father and Child Scales

At 6 months and 14 months, examination of all father and child scale scores indicated substantive variation for the majority of scales, as reflected in the fact that scores generally

⁵A scree plot of the factor eigenvalues 3.8 and 1.9 supported the two-factor solution at 6 months and eigenvalues 3.9, 1.9, and 1.4 supported the three-factor solution at 14 months.

ranged from less than 2 SDs below the mean to over 2 SDs above the mean (Table A.5). The exception was that child *Mastery* at 14 months was negatively skewed (-2.01); reflect and inverse transformation reduced the skewness to 1.3 and the scale was retained for further analyses.

Table A.5: Father and Child Scales

	6 Months			14 Months		
	<i>M</i>	<i>SD</i>	Range	<i>M</i>	<i>SD</i>	Range
Father Scales						
Responsive/Didactic	35.6	8.5	16-54	35.1	6.8	18-53
Negative/Overbearing	11.3	4.2	6-25	10.3	3.2	6-24
Child Scales						
Mastery	15.7	3.9	5-20	22.0	3.0	8-25
Social/Communication	12.1	3.6	6-21	-	-	-
Social	-	-	-	11.2	2.8	6-19
Communication	-	-	-	6.7	2.2	3-12
Sample Size	58			58		

SOURCE: Father newborn video data at 6 and 14 months.

Intercorrelations Among Father and Child Scales Within and Across Ages

First, intercorrelations among the father and child scales were examined at both ages. At 6 months, fathers' scores on the *Responsive/Didactic* scale were negatively related to their scores on the *Negative/Overbearing* scale (correlation of -.26, significant). There was no relationship between father scales at 14 months (correlation of -.14, significant). Infants' scores on the *Mastery* and *Social/Communication* scales were positively associated with each other (correlation of .38, significant). At 14 months, children's scores on the *Mastery*, *Social*, and *Communication* scales all covaried (correlation of .31 to .40, significant).

Fathers' scores on the *Responsive/Didactic* scale at 6 months related positively to infants' scores on the *Social/Communication* scale (correlation of .40, significant), while fathers' scores on the *Negative/Overbearing* scale related negatively to infants' scores on the *Social/Communication* scale (correlation of -.19, significant). Neither father scale related to infants' scores on the *Mastery* scale (correlations of -.08 and -.09, not significant).

Similar relationships between father and child scales were identified at 14 months. Fathers' scores on the *Responsive/Didactic* scale positively related to children's scores on the *Mastery*, *Social*, and *Communication* scales (correlation of .35 to .39, significant). Fathers' scores

on the *Negative/Overbearing* scale related negatively to children's scores on the *Mastery* scale (correlation of $-.19$, not significant).

Next, relations between scales across ages were examined (see Table A.6). Fathers' behaviors were stable over time for the *Responsive/Didactic* scale (correlation of $.47$), and for the *Negative/Overbearing* scale (correlation of $.30$). Neither of the 6-month children scale scores was highly related to the three children's scale scores at 14 months (correlations of $-.06$ to $.19$, not significant). Also, neither of the two father scale scores at 6 months predicted the three child scale scores at 14 months (correlations of $-.12$ to $.17$, not significant). Child scale scores at 6 months did not predict father scale scores at 14 months (correlations of $-.10$ to $.13$, not significant).

Table A.6: Intercorrelations of Father and Child Scale Scores Across Time

	Father Scales at 14 Months		Child Scales at 14 Months		
	Responsive/ Didactic	Negative/ Overbearing	Mastery	Social	Communication
Father Scales at 6 Months					
Responsive/Didactic	$.47^{***}$		$.11$	$.17$	$-.07$
Negative/Overbearing	$-.03$	$.30^{**}$	$-.12$	$-.10$	$.01$
Child Scales at 6 Months					
Mastery	$-.10$	$-.07$	$.08$	$-.06$	$.10$
Social/Communication	$.13$	$-.08$	$.12$	$.19$	$.16$
Sample Size	58		58		

SOURCE: Father newborn video data at 6 and 14 months.

NOTE: $^{***} p < .001$. $^{**} p = .01$.

APPENDIX B

LESSONS FOR DATA COLLECTION

Our interviewers employed creative means to find and interview men and families in the Newborn Study. We have collected here some examples of valuable lessons that we learned about how to find and maintain contact with an elusive sample, lessons we expect will be useful to other researchers conducting research with fathers in the context of an intervention program.

- *Be aware of challenges to enrolling families during pregnancy.* Although many Early Head Start programs target pregnant women as potential program participants, the programs with which we were working had not enrolled as many pregnant mothers as we expected. We originally planned to conduct our first interview with the mothers when they were pregnant, and to conduct the first father interview when the children were 1 month old. It was very challenging to meet this goal, because the number of pregnant program participants was never large. In addition, programs worked very hard to keep all their slots full, so openings for new families were not available very often. To address limited sample enrollment activities in Early Head Start programs, researchers went to great lengths to recruit other comprehensive child development programs that offer services to infants and toddlers to participate in the research. In some of the research sites, these efforts required lengthy negotiations with the new programs and rewriting of study recruitment materials to better target a particular group of parents. (For example, one site engaged high schools that were working with teenaged parents and tailored study materials to increase the likelihood of engaging the teenagers.)

Based on these experiences, we recommend that, unless researchers are focused on fathers in an intervention program, it may be simpler to recruit fathers of newborns from hospital maternity wards. The Fragile Families and Well-Being Study has had success with this approach (McLanahan et al. 2003). If researchers are interested in studying fathers in the context of an intervention program, a better approach might be to link the research to the start of the program (to avoid having to wait for new families to enter the program), or to link it to a

period during which an existing program has many vacancies (for example, in the fall, when families may graduate from programs).

- ***Establish a system for discussing challenging situations with interviewers and developing strategies to resolve them.*** Researchers found that meeting two to four times a month with the interviewers was a productive way to review changing family situations, and to develop strategies for approaching parents who were difficult to locate and interview. Research teams found it useful to keep detailed notes about changing family circumstances and the contact strategies that the group identified. To keep track of who might or might not be able to help locate a family, researchers kept notes about the status of relationships, such as whether the child's father got along with the child's grandmother. In New York, the team decided that the same interviewer should always contact a particular family. One person was assigned as the primary interviewer, and one was assigned as the helper and backup. The team found that this strategy was a good one when family relationships changed (the interviewer with the best rapport with the mother or father made the contacts) or if there was a need for another language during the interviews.
- ***Investing in communication with programs and with families is worthwhile.*** Programs were very interested in learning about the study findings, and one strategy that the researchers developed was to send programs a newsletter or copies of research papers and presentations based on the study a few times a year. This investment paid off, because it made the programs feel more like partners in the research. Researchers who could not locate a family went back to the program to ask for help. When programs felt like partners in the research, we had greater success in finding families than when we did not maintain communication with the programs.

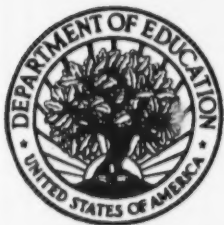
In addition to contacting families for their interviews, sites also sent birthday and holiday cards to the children and parents. In New York, the research team also sent a card to families after the September 11, 2001, attacks to check in with them. Interviewers also kept track of important family events, such as big parties and weddings, and they asked families about those events when they called to schedule an interview. This effort helped to build rapport between the interviewers and the families, and it also showed that the interviewers were listening to families and were interested in them.

- ***Realize that family relationships may change over time and prepare by establishing and maintaining good relationships with family members.*** Sometimes, interviewers found parents to be in a close relationship at the time of the early visits but separated or divorced at later visits. In these situations, they offered mothers support and sometimes consolation, at the same time encouraging them to provide contact information on the fathers. Some mothers would not give the interviewer any information about how to reach the fathers, usually because the mothers hoped that they would be back in a relationship with the fathers before the next interview with the fathers.

Some children were no longer in the custody of either parent when an interview was scheduled. In this situation, researchers debriefed with interviewers and instructed the interviewers to include in part of the study the person who had custody (for example, by conducting the video protocol with the grandmother and providing a financial incentive to her). In this way, the interviews could obtain contact information about the mother and father from the person with custody.

- ***Be prepared to invest a great deal of time in completing the interviews.*** Completing interviews with both fathers and mothers is challenging, and from our experience requires much more persistence than attempting to interview just one parent. Completing interviews with fathers and videotaping father-child interactions is also challenging because of the added component of visiting the family in their home and of finding a convenient time for both the father and the child for conducting videotaped activities. One researcher recommended being persistent and relentless until the family either refuses to participate or completes an interview. The research teams tried a number of strategies, including dropping by the family's home unannounced to see whether the family would complete the interview at that time or using the visit as an opportunity to schedule an interview. Some of our research sites reported as many as 30 telephone and in-person contacts with the families before completing interviews—and some reported even more. In one site, for 25 percent of the families, interviewers made 20 telephone contacts and many visits to the home to interview each family.
- ***A family's refusal at one time does not necessarily mean that it will refuse to participate the next time.*** The research sites made every effort to invite all families to participate in each round of data collection. Even if a family refused when the child was 6 months old, its circumstances could have changed by 14 months such that it decided to participate in the later interview. In some cases, families were motivated by the financial incentive to participate at one time but not at another.
- ***Remain flexible.*** Interviewers learned to be as flexible as possible about scheduling visits. Most interviews were completed in the evening or on weekends. Some parents worked shifts and requested that interviews be completed very early in the morning. Interviewers tried to accommodate families as best they could. Parents who were not willing to have the interviewer visit at home were asked to complete the interview by telephone. Some parents did not want to be interviewed but were willing to complete the video protocol. In those cases, interviewers brought all the materials with them and still made an attempt to complete the interviews.
- ***Collect independent contact information on fathers and update it regularly.*** Interviewers learned the value of collecting contact information not only from the mothers, but from the fathers as well. Families' configurations changed over time, which made it valuable to have independent information

gathered from fathers, including the names of the fathers' friends and family members who would be likely to know where to contact them in the event that they moved. It was also useful to confirm and update this information at each contact with the fathers.



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